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AND THE UNIVERSITY OF NORTH CAROLINA.

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The SOUTHERN ECONOMIC JOURNAL

April, 1938

NAVIGATION ON THE TENNESSEE RIVER

DAVID E. LILIENTHAL

Tennessee Valley Authority

In another year a large section of the Tennessee River will become commercially navigable for the first time. And about five years later, if present TVA construction schedules are maintained, producers, consumers, and shippers can rely upon an all-year minimum nine-foot channel for the entire distance from Knoxville in East Tennessee to Paducah on the Ohio River, 648 miles of new deep waterway. But that is not all. The Tennessee River will then be part of an integrated network of waterways, the largest improved waterway system anywhere in the world. It means that large vessels providing the cheapest form of bulk transportation yet devised can carry the product of the farm, the mine, and the factory between the southeastern region and such centers as St. Louis, Minneapolis, Chicago, New Orleans, Pittsburgh, and scores of other focal points of commerce throughout the Mississippi Valley. (See Chart I.) The future of the South and of its people will be directly and deeply affected by this new system of highways.

The nation has expended millions of dollars and the energy and skill of thousands of men to produce this modern avenue of commerce through the heart of the southeast. What will be the effect on the South and on the nation? May I suggest three principal effects:

First, as soon as the Tennessee River becomes part of the integrated Mississippi River network, it will begin to carry an extensive and varied commerce, and that commerce will steadily grow to large proportions.

Second, navigation on the Tennessee River, as the cheapest form of bulk transportation, will add greatly to the wealth and income

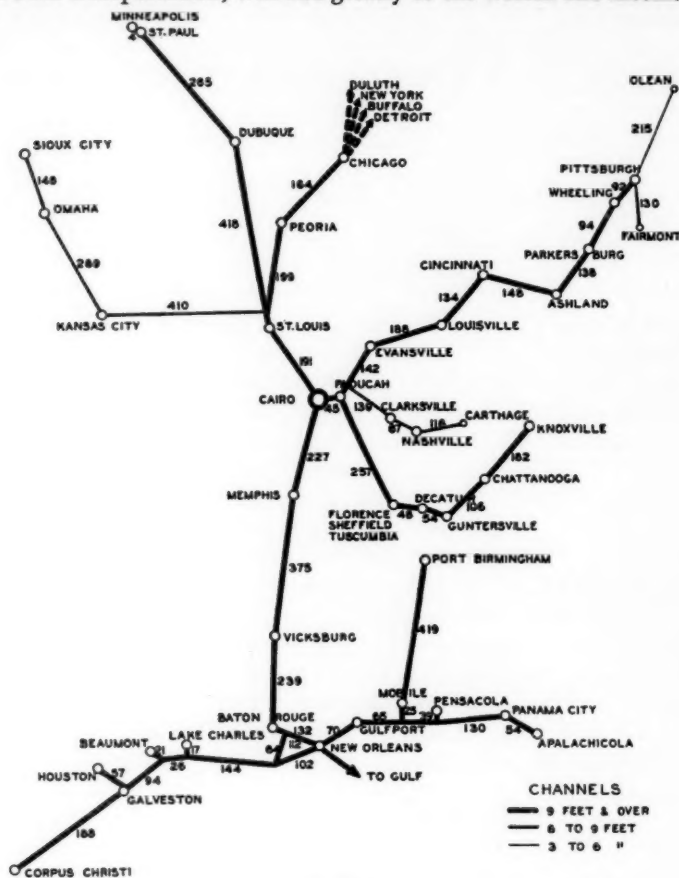


CHART I

SHORT LINE WATER DISTANCES OF MISSISSIPPI RIVER AND MAIN CONNECTIONS

of the people of the South and of the nation. Resources and human energies now lying dormant will take on life and produce value.

Third, navigation on the Tennessee River and its interconnecting system will contribute directly to a more nearly balanced economic life for the nation, by providing a better geographical distribution of wealth and population.

1. *As soon as the Tennessee River becomes part of the integrated Mississippi River network, it will begin to carry an extensive and varied commerce, and that commerce will steadily grow to large proportions.* Even as an unimproved stream, the Tennessee River has been used to a considerable extent for navigation purposes. The traffic, of course, is primarily local in character, but there has been a steady climb in the total tonnage transported on the river. The characteristics of the traffic have witnessed some change during this period. The number and variety of commodities moving on the river—and this is especially significant—have increased.

Specific evidences of a much more extensive use when the channel is completed are accumulating almost daily. Terminal properties are being acquired along the river. Industrial establishments are obtaining locations on the river banks. Inquiries concerning the availability of water service are being made, and contracts are being discussed at the present time looking to the transportation of important traffic on the river. A large movement of petroleum and petroleum products, of grain and grain products, forest products, steel, coal and coke and other minerals is now definitely in sight. Inquiries are being received concerning the movement of coal and coke for fuel purposes. Gasoline distributors are making definite plans to move their products on the river.

The reason for this active interest among business men in navigation on the Tennessee River is a simple one: large savings in transportation costs, savings large enough to create new business. Suppose you were in the gasoline business and were computing the cost of sending a barge of 500 tons from Wood River, Illinois, to Knoxville. By rail that shipment would cost \$9.40 per ton; by the river, \$2.65 per ton, a saving of 72 per cent or \$3,375 saved on the single barge. Between Wood River and Chattanooga the total saving would be \$3,450; between Baton Rouge, Louisiana, and Decatur, Alabama, \$1,365. It is estimated that there will be a total annual movement of petroleum products on the Tennessee River, based upon present consumption, of at least 500,000

tons and a total saving on this commodity alone of \$2,500,000 each year. Suppose iron and steel is your business, and you want to send a carload of 36,000 pounds from Chicago to Chattanooga. If that shipment goes by water down the Mississippi and up the Ohio and the Tennessee, there is a saving of 9.8 cents a hundred pounds, or 20 per cent, which on the one carload would amount to \$35.28 under present rates without the projected increase. On the 50,000 tons of steel being used each year in Chattanooga industries, the annual saving would be \$98,000 on this one commodity. Or you might be interested in shipping a carload of canned goods to St. Louis, Missouri, from Newport, Tennessee. The saving in shipping by combination of rail and river is 9.6 cents a hundred pounds, or \$34.56 for the carload, a saving of 22 per cent under the all-rail rate.

The so-called "class rate" savings by shipment to and from Tennessee River terminals are equally interesting. In rate terminology, classes 5 and 6 cover a large number of manufactured and processed articles. For example, suppose you were a dealer in agricultural implements at Guntersville, Alabama, and secured these articles, rated 6th class, by rail from Chicago. Should these implements be moved in by water a saving of 14 cents per hundred pounds would be effected. Likewise you would find that shipments of drugs, medicines and chemicals, rated 5th class, would be 20 per cent cheaper when moved by water from Peoria, Illinois, to Decatur, Alabama.¹ A great many similar computations have been made, and all of them bear out the conclusion that the beginning of navigation on the Tennessee River will mean large savings in transportation costs on almost every class of commodity. It is not through idle curiosity that business men are actively studying the use of the Tennessee River as a highway.

If we did not have definite evidence of an intention to use the stream for navigation purposes, which we have, we could obtain confirmation that it will be used from experiences on other improved waterways of the United States. *Wherever good navigable channels have been provided, commerce has increased on the waterways of the country.* Traffic on the Illinois waterway, for instance, which

¹ The all-water or all-rail rate has been computed according to the formulas specified by the Interstate Commerce Commission in Ex Parte 96, 156 I. C. C. 141.

is a stream also improved by federal funds, has increased ten-fold in the last decade. Traffic on the Ohio River, another stream improved at federal expense, is increasing considerably. On the whole Mississippi River waterway system, which includes not only the Mississippi River itself but its tributaries, traffic of all kinds has grown from 25,566,000 tons in 1920 to 73,902,000 tons in 1936.²

TABLE I
DURATION OF NAVIGABLE DEPTHS JANUARY 1, 1939, WITH NORRIS, WHEELER, AND
PICKWICK DAMS COMPLETED

SECTION OF RIVER	LENGTH OF SECTION (MILES)	1939 CON- TROLLING DEPTH AT LOW WATER (FEET)	PER CENT OF TIME				
			3-Foot Depth	4-Foot Depth	5-Foot Depth	6-Foot Depth	9-Foot Depth
Paducah-Riverton	226.7	6.5	100	100	100	100	70
Riverton-Florence	30.1	9.4	100	100	100	100	100
Florence-Wheeler	18.1	7.0	100	100	100	100	0 ^a
Wheeler-Guntersville	87.5	7.0	100	100	100	100	95 ^b
Guntersville-Widows Bar	49.6	4.0	100	100	85 ^c	72 ^c	0 ^e
Widows Bar-Hales Bar	23.6	6.2	100	100	100	100	55 ^d
Hales Bar-Chattanooga	32.9	6.0	100	100	100	100	80 ^e
Chattanooga-Clinch River	103.6	3.0	100	60	40	20	0 ^f
Clinch River-Knoxville	80.0	1.5	65	35	20	0	0

^a Limited to 7 feet by present condition of Florence Canal.

^b Nine-foot depth if Wheeler pool is held above elevation 552.0. If drawn to minimum elevation 550.0, only 7 feet will be available.

^c Nine feet available 100 per cent of time when Guntersville Dam is completed—probably during 1940.

^d Nine feet available 100 per cent of time when Guntersville Dam is completed. Widows Bar will be covered by pool.

^e Nine feet available 100 per cent of time to Chickamauga Dam when project is complete.

^f Nine feet available 100 per cent of time to Euchee, Tennessee, 69 miles, when Chickamauga Dam is completed—probably during 1940.

Aside from the actual movement of commerce on the interior waterways, an industrial expansion is taking place in the interior along these waterways. This in itself gives assurance of an increased use of these streams for navigation purposes.³

After more than a century's effort we are close to the day when

² U. S. Army, Chief of Engineers, Annual Reports, 1921-1937, Part II.

³ J. Haden Alldredge, *A History of Navigation on the Tennessee River System*.

the Tennessee River will be available for extensive commercial navigation. Table I indicates the duration of navigation depths in various parts of the river as of January 1, 1939, less than a year hence. It shows that, within a year, with only four dams of the system in operation (Wilson, Wheeler, Pickwick and Norris), the Tennessee River will even then provide a six-foot minimum depth all the way from Chattanooga to Paducah, with the exception of only a 50-mile section between Gunterville and Widows Bar; but even that 50-mile section will provide a six-foot channel 72 per cent of the year, and by 1940 there will be available throughout the year a six-foot channel for the entire course between Chattanooga and the Ohio River.

2. *Navigation on the Tennessee River, as the cheapest form of bulk transportation, will add greatly to the wealth and income of the people of the South and of the nation. Resources and human energies now lying dormant will take on life and produce value.* It is generally agreed, I think, that anything that substantially decreases the cost of production of commodities for which there is an effective demand thereby increases the volume of production. Transportation represents a strikingly high proportion of the total cost of producing and marketing commodities in the United States. Or, to put it another way, when the housewife in Chicago buys a peck of potatoes or a householder in St. Louis buys a ton of coal or a merchant in LaCrosse, Wisconsin, buys a shipment of furniture, a startlingly high percentage of the price paid is due to the cost of transporting the potatoes from the farm, the coal from the mine, the furniture from the forest and factory.

It is sometimes hard to realize the extent to which transportation costs affect the total costs to the producer and the total price to the consumer. Recent figures indicate that 30 per cent of the price of potatoes at their wholesale destination goes into freight charges. For the products of agriculture the average per cent of freight costs to wholesale price is 13.67 per cent. Sixty-two per cent of the wholesale price of bituminous coal is represented by freight, and of the products of mines generally, 36 per cent.⁴ (See Table II.)

⁴ Interstate Commerce Commission, Bureau of Statistics, Statement No. 3552, File No. 18-C-23, May, 1935.

TABLE II
INFLUENCE OF TRANSPORTATION CHARGES ON WHOLESALE PRICES OF SELECTED COMMODITIES

COMMODITIES	AVERAGE HAUL IN MILES	PER CENT FREIGHT REVENUE OF VALUE AT DESTINATION
Apples, Fresh.....	1,161.1	33.40
Cabbage.....	969.8	41.40
Cantaloupes and Melons, N.O.S.....	2,431.9	51.19
Grapes, Fresh.....	2,497.4	64.41
Onions.....	1,011.9	35.81
Oranges and Grapefruit.....	2,134.8	43.67
Peaches, Fresh.....	844.5	29.18
Potatoes, Other than Sweet.....	741.5	29.68
Tomatoes.....	1,491.6	55.60
Vegetables, Fresh, N.O.S.....	2,061.3	41.91
Watermelons.....	1,084.1	65.86
FRESH FRUITS AND VEGETABLES (ABOVE).....	1,495.9	39.78
Barley and Rye.....	576.7	33.97
Beans and Peas, Dried.....	888.1	35.00
Corn.....	191.1	11.54
Grain, N.O.S.....	505.0	17.59
Oats.....	359.1	17.80
Rice.....	320.3	6.31
Wheat.....	319.3	13.56
Hay and Alfalfa.....	374.6	41.49
Straw.....	109.9	38.77
GRAINS AND HAY (ABOVE).....	311.1	16.10
TOTAL PRODUCTS OF AGRICULTURE.....	317.3	13.67
Lumber, Shingles and Lath.....	747.0	23.50
Posts, Poles and Piling.....	504.7	39.59
Pulpwood.....	148.7	3.27
Ties, Railroad.....	313.1	10.49
TOTAL PRODUCTS OF FORESTS.....	454.6	21.11
Bituminous Coal.....	161.9	61.83
Gravel and Sand.....	69.7	61.38
Iron Ore.....	131.8	21.31
Petroleum, Crude.....	401.3	29.41
Phosphate Rock, Crude.....	111.9	26.35
Salt.....	431.2	64.41
Zinc Ore and Concentrates.....	351.7	35.93
TOTAL PRODUCTS OF MINES.....	579.4	35.95
Cement.....	191.8	25.39
Fertilizers, N.O.S.....	186.0	35.48
Sulfuric Acid.....	161.7	33.78
TOTAL ANIMALS AND ANIMAL PRODUCTS.....	641.8	6.99

Freight Traffic Report, Appendix I, Federal Coordinator of Transportation I.C.C. Statement No. 3353 File No. 18-C-53, May, 1935.

We haul goods farther in this country on the average, between their points of production and their points of ultimate use, than in any other country in the world for which we have figures available, with the exception only of Canada.⁵ We thus have a situation in which transportation costs represent a very large percentage of total costs of things we buy. A substantial reduction in those transportation costs will reduce costs generally, and this in turn should lead to lower prices and greater production. We have seen this happen too often to have any serious doubts about the general soundness of this conclusion.

All of which brings us back to the Tennessee River and the effect of its navigability as a stimulus to the industrial, agricultural, and commercial revival of the South.

The Tennessee River, as part of an interconnected system of deep waterways, will drastically cut the cost to the shipper of transporting many, if not most, classes of commodities on long hauls between the southeast and points throughout the Mississippi Valley. I think it is clear that water transportation is the cheapest form of transporting heavy goods over substantial distances.⁶ Not only is it cheaper, but it is remarkably cheaper; not only will there be a saving to shippers in transportation cost for many classes of commodities, but a drastic and substantial saving over any other form of transportation. Of course the transportation will not be wholly by water: the river will become a trunk highway and will be fed not merely from the river's bank but by the other transportation arteries which lead to the river—highways and railroads.

The South is suffering under a disadvantage in the matter of its freight rates. That disadvantage has the effect of bottling up great natural resources and of preventing a normal, healthy growth of industry and a more adequate return to agriculture. Mr. J. H. Alldredge, who is one of the best qualified men in the

⁵ For example, the average haul of a selected list of 12 fresh fruits and vegetables is 1,456 miles; lumber 747 miles; grain 505 miles; animals and animal products 624 miles. See Federal Coordinator of Transportation, *Freight Traffic Report*, Appendix I, Exhibit 110, Section 2, pp. 74-75.

⁶ In his report on relative function costs of transportation entitled *Freight Traffic Report*, Vol. I, the Federal Coordinator of Transportation stated on p. 79: "The cargo water carriers undoubtedly provide the cheapest form of transportation as it is presently conducted."

country on interterritorial freight rate matters, has demonstrated this, I think, beyond question in the recent TVA study, which, at the direction of the President, has been made a public document.⁷ Even if the freight rates in this region were on a parity with those in other regions, a substantial reduction in transportation costs through waterways would have a stimulating effect upon the economic life of the South. The two factors taken together, however, in my opinion, produce a situation which will cause agriculture and industry to prosper, and enable the people of the region to attain a higher standard of income than now exists.

One of the simplest ways of demonstrating that the opening of the Tennessee River navigation will greatly increase the income of the South is to point to the fact that internal waterways in other parts of this country are having that very effect. The Mississippi Valley internal waterway system, of which the Tennessee River will soon form an important link, is already producing results. The best evidence is the decision of business men to expand industrial activity because of the saving of costs involved in use of the Mississippi waterway. Recently Mr. Harvey S. Firestone, chairman of the board of the Firestone Tire and Rubber Company, made this statement in connection with the expansion of the company's operations by the location of a plant in Memphis: "We can make quite a saving in transportation costs by shipping rubber right to our plant in Memphis by an all-water route to New Orleans and up the Mississippi, both from our plantations in Liberia and from the Far East." Mr. Henry G. Johnson, president of the National Piano Manufacturing Company, which has just located a new factory at LaCrosse, Wisconsin, which will be connected with the nine-foot Mississippi channel comments: "This channel, when completed, will allow us to ship our pianos down the Mississippi, through the Panama Canal, and up the west coast of the Pacific. It will also allow us to ship pianos to the leading cities along the river." The same thing is happening in the way of industrial expansion on the Illinois waterway at Peoria, Illinois; at Moline and Rock Island, Illinois; at Evansville, Indiana, on the Ohio; at other cities on the Mississippi system.

⁷ *The Interterritorial Freight Rate Problem of the United States*, House Document 264, 75th Congress, 1st Session.

But it is not only through the expansion of industry that the South will feel the beneficial impact of this new navigation channel. It will mean as much, and possibly more, in increasing the income and wealth of agriculture and those engaged in mining and forestry activities. Agricultural products for the most part are, as we know, sold on a highly competitive market, and most of these farm products must stand a long transportation haul before they reach their destination and produce their ultimate value. The price of a number of those commodities is fixed in world markets. If the Southern farmer's transportation costs are high, he must nevertheless sell at the world price, or in any event the competitive price, excepting only when the federal government from time to time steps in to help improve what might otherwise be a wholly disastrous situation. This means that if the price is less than it costs the farmer to produce cotton or wheat or corn, plus the transportation charges, the deficit is paid by the farmer, by the farmer's wife and children, and by his land. If we can substantially cut the cost of transportation, to that extent the farmer's position in world markets is improved.

These beneficial effects upon the economic future of the South are also beneficial to the nation as a whole. When you increase the volume of production in the southeast, you benefit the entire country. As the National Industrial Conference Board has pointed out, the new production is matched by new markets for goods from other regions.⁸

To urge the development of internal waterways as a good national investment is not simply to praise the New Deal in a partisan fashion. With the exception of limited, special-interest groups, no one who has studied the problem of internal waterways from the national point of view has ever seriously questioned the economic and social soundness of this development. Former President Herbert Hoover is regarded as one of the leaders of the opposition to this Administration. When Secretary of Commerce, Mr. Hoover strongly urged the national benefits of the development of the Tennessee River as part of an integrated internal waterway system throughout the Mississippi Valley.

⁸ National Industrial Conference Board, *American Agricultural Conditions and Remedies*, 1936, pp. 56-57.

This is his statement to the Committee on Rivers and Harbors of the House of Representatives on January 30, 1926: "Now, there is a fundamental economic fact that improved transportation facilities cheapens the cost of goods, and thereby increases the volume of consumption, and thus the old saying that new transportation creates business is absolutely true. Every time we can cheapen the cost of producing goods, we increase the volume of production and thereby we increase the volume of traffic." And, in the light of the statements that are being made today concerning the economic soundness of the Tennessee Valley Authority development by persons who are something less than disinterested, note these remarks of Mr. Hoover: "We might add as a corollary that the expenditure on works of this type is a reproductive expenditure, *which increases the wealth of our country many times their cost, and even increases the area of tax distribution and becomes in the end an actual economy to the Government, even if we take a narrow point of view.*" (Italics supplied.)

3. *Navigation on the Tennessee River and its interconnecting system will contribute directly to a more nearly balanced economic life for the nation, by providing a better geographical distribution of wealth and population.* Business men, public men, and economists are in general agreement that the wealth, the income, and the population of the nation are geographically concentrated to an extent that is not in the best interests of the entire nation. Few of us realize the extremes to which this concentration has gone. There are 3,074 counties in the United States. Thirty-nine of these counties cover three-fourths of one per cent of our total land area. That is a negligible portion of the area of the country, and yet note the concentration in these 39 counties:

In these 39 counties is produced half of the total value of manufactured products of the entire United States.

In these 39 counties is to be found 40 per cent of the effective buying power of the entire United States.

In these 39 counties is contained 27 per cent of our total national population—more people than live in all the twelve states of the South.⁹

⁹ *United States Census of Manufactures, 1935; Abstract of the Fifteenth Census of the United States, 1930; Sales Management, New York, Survey of Spending Power, April 10, 1937.*

Such extreme concentration is not consistent with the welfare of the nation as a whole. As the President said in his address at Bonneville Dam: "... there is inherent weakness in cities which become too large and inherent strength in a wider geographical distribution of population." The completion of the Tennessee River development, together with the further development of the interconnecting Mississippi River waterway, should contribute directly and materially toward a better distribution of industry, purchasing power, and population. To the extent this is true, the development of these waterways is in the national public interest.

No single fact can account for the geographical concentration of wealth and population, and no single factor taken alone will stay the trend and produce a better balanced distribution in our national life. But there can be no doubt that the drastic cheapening of transportation in the interior of the country, and notably in the southeast, will tend to produce a more nearly sound geographical diffusion of wealth and population.

All the experience of the United States and of other countries demonstrates beyond question that *wealth, industry, and population flourish along developed waterways*. There are always other factors, as is true in any economic situation, but the single thread that runs through all this experience is the existence and availability of improved and useful water transportation. Of the 39 leading counties of the United States which produce 50 per cent of our manufactured products, 40 per cent of our purchasing power, and contain 27 per cent of our total population, only 4 are without some type of water transportation. (Incidentally, only three of these counties are in the southeast).

Another illustration of the beneficial effect of water transportation in the development of new commerce is afforded by the Panama Canal. Prior to the construction of the canal, water transportation between Atlantic and Gulf ports and the Pacific coast was slow and expensive. The building of the canal cheapened the cost of transportation between our coasts to a remarkable degree. As a result, a great volume of commerce has developed between Atlantic, Gulf, and Pacific ports, and regions closely related to those ports. New industries and the stimulation of exist-

ing industries all up and down the Atlantic and Pacific seaboard can be directly attributed to the cheap transportation made possible by the Panama Canal. This is not surprising, for it has been the invariable rule that the improvement of water transportation has caused commerce to flourish. It is further reason for believing that the completion of the Tennessee River development and of the Mississippi Valley system will have a similar effect upon the interior of the country which has not received the direct benefits of the Panama Canal.

In my opinion the development of the Mississippi River waterway system, including that of the Tennessee River, will provide a better national balance in the geographical distribution of wealth, income, and population, due to the following factors:

First, by a drastic cutting of long-haul transportation costs in the interior, industry will be stimulated in the Great Valley, with a resulting increase in purchasing power in the area.

Second, by a drastic cutting of transportation costs the economic position of the farm population will be improved and the purchasing power of farmers increased.

Third, the increased purchasing power of labor and farmers in the southeast and the Mississippi basin generally will develop consuming markets, to be served in part by industry located near these markets, a location of industry better suited to the needs of business and the national interest.

Fourth, all of these factors will stay the trend of the migration of population out of the interior, and particularly out of the southeast, by providing labor and farmers with greater opportunities for a livelihood within the area.

SOME ALTERNATIVE BASES FOR PUBLIC POWER PROJECTS*

HERBERT B. DORAU

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I

The economic considerations involved in a program of public power development are difficult to segregate from the many other issues with which they are joined. Moreover, the most important considerations do not arise in connection with public power projects as such, but out of the relations, actual or threatened, of a public power program to the existing electric industry. Rightly or wrongly, public power projects are widely accepted as part of the political attack on private enterprise in the electric industry and the issues have shaped themselves accordingly.

To further confuse and complicate the issues, public power projects have sought and found support on highly diverse grounds, ranging from conservation, navigation, flood control, economic regeneration, and social salvation, to use as an entering wedge for a widespread development of public ownership. That such diverse ends will not all be served equally well and that many acutally are in conflict would seem obvious. The reasons for public power projects vary with the advocate and even the place and circumstance under which offered. The advocates themselves are not in agreement as to why there should be public power projects. In Congress one purpose is alleged and before the court, another. These undertakings are thus represented as justified by such a multiplicity of results as to make evaluation almost impossible. To review or appraise every basis singly as if it were the lone justification is also impossible on this occasion. Only three have been selected for attention.

As a general proposition it may be set down that the validity or

* This paper was prepared in October, 1937.

relevance of an argument for or against public power projects depends on the purpose which such a project is intended to serve. As an ideal this is difficult to apply when a given project is the alleged means to a great multiplicity of ends. Our method will nevertheless be to attempt to hold the public power project to single ends long enough to examine the validity or practicability of that end.

This approach, it is hoped, will be distinguishable from that of the absolutist who favors or opposes a given form of economic organization as such. All but the most obdurate conservative and the more hopeless victims of zealot's dreams are capable, we assume, of appreciating the significance of time, place, circumstance, and purpose in the evaluation of alternative economic policies. Public power proposals have called forth an extra measure of both confirmed opposition and frenzied advocacy of the idea as such. Let us take a simple example to illustrate the point of view to which we hope to hold.

Public ownership on an isolated municipal plant basis is today obsolete under most circumstances. The isolated municipal plant as well as the isolated private undertaking has had to give way before the changes in the technology of the electric industry. Over two thousand municipal establishments once in existence are no more, and half of those that remain distribute purchased power. The public power project under federal sponsorship has displaced the old municipal plant ideal in the affections of the public-ownership proponent and is probably the technical requisite for the survival of any substantial part of municipal ownership. If one accepts the protection or the expansion of municipal ownership in the electric industry as a desired end, it follows without much analysis that some form of public power project is necessary to perform for these municipal undertakings the functions which the holding company performs in the area of private enterprise. Whether the end justifies all that such a program involves is not begged by the conclusion that the means are necessary to the desired end.

In brief, then, the validity of an expressed reason for or against public power projects rests on its relation to the end or purpose in

view. The three purposes of public power undertakings which will be considered are their use (1) as experiments, (2) as yardsticks, and (3), as a method of coercion.

II

The development of economic science has been hindered, it is said, by the difficulty, and to an extent impossibility, of using the experimental method. That appears to be generally true. The electric industry, however, affords interesting opportunities for just such economic experimentation, the results of which would add to our understanding of general principles as well as contribute to the solution of the special problems.

The circumstances under which electric service is rendered invite the adoption of the experimental laboratory method. Thus it may be noted (1) that normally there is a single seller in exclusive control of a defined market, (2) selling his service under a system of administered prices, (3) with power to classify his customers and engage in differential pricing, (4) with the possibility of securing at comparatively low cost periodic information as to how customers behave as a group, by classes and as individuals, and how their consumption responds to a change in price. Here the relations of demand, supply and price, elasticity of demand, the influence of alternatives, of appliance merchandising, of the purchasing power of the customers, their mode and manner of living, can all be studied and more exact relationships determined. An *experimental* public power project thus meets the first requirement, namely, the practicability of the laboratory method for the study of the economics of the electric industry.

Having established the practicability of the experimental purpose, we may next inquire whether there is useful knowledge to be gained. It is with economic relations that we here concern ourselves, for the technical and engineering development of the electric industry has been so phenomenal and has brought the quality of service up to such a high level that in this respect the critics have had nothing to say.

The excellence of engineering as compared with economic results is understandable. Every plant is in a sense an engineering experiment. The results are readily obtained and compared.

There have been adequate inducement and opportunity to view each technical change experimentally. There is, then, no need for public power projects directed toward discovering technical fact. But in the realm of economic relationships, particularly the relationship of price to demand, there does exist the need for more adequate and exact knowledge. Does the market make the price or the price make the market? The economist knows that the politician, who says that price governs consumption, and the management, which holds that consumption fixes the price, are both wrong. The economist understands that both the price and the potentialities of the market are important. The question is, how far down in the scale of prices can private enterprise find a point of balance which will give it the revenue necessary to pay the cost of the service? The answer in most instances is not known. There is need for exact and reliable information of this character and the circumstances under which electric service is rendered make such determinations possible. Such information may be useful in two practical ways. It should on the one hand stop the extravagant claims of politician and demagogue and on the other give assurance to those timid and fearful managements often too long hesitant in their efforts at exploring the possibilities of their markets.

A number of questions immediately arise. Why take recourse to public power projects with all their complications, limitations, and capacity for disturbing the operation of private enterprise? Is it not possible for private undertakings to explore and determine the fullest potentialities of their markets and thus provide the knowledge from which a clear understanding of the nature of the relation of the demand to the final price of electricity can be gained? Why have not private enterprisers made such determinations?

A number of conditions have hampered private enterprise in directly or incidentally exploring for the economic limits of the market for electricity. They are inherent in the totality of circumstances which surround the operations of privately owned electric enterprise. There is the desire to remain solvent and to avoid uncompensated risks. There is the need to appear to be balancing cost with income *within each accounting period*, which

period may be artificial but is, nevertheless, the accepted basis for qualifying securities for legal investments and for reflecting the attractiveness of results in the competitive struggle to attract new capital. Freedom from this embarrassing requirement alone gives public authorities an incomparable latitude of action and frees them from the principal handicap of private enterprise.

It may be observed in the second place that electric utility managements have not in general been characterized by a merchandising consciousness. Executives trained primarily in engineering and law are understandably more intrigued by the possibilities of higher pressure boilers or a new technicality in rate litigation than by market analysis. Very rarely have these enterprises equipped themselves with a personnel professionally trained to cope with the economic problems of the industry. Preoccupation with property and plant and capital structures has operated to postpone consideration of the market and its potentialities. For a considerable period new business just came, and about as fast as it could be economically handled. Similarly, technological advances reduced costs so as to offset the losses due to rate reductions made with little regard to the potentialities of the market. Even in this late day the number of companies making regular customer and bill analyses is small, while very few indeed have done so both before and after rate changes so as to disclose just what the effect of a rate reduction has been on the structure of the market.

The third question strikes even closer to the crux of the matter. What inducement is there under the prevailing theory and practice of regulation to experiment with the possibilities of the market? Under our system of profit regulation (as distinguished from rate regulation), there may be good reasons for not discovering or disclosing all the potentialities of a market at a given time. If an enterpriser is made to feel that as soon as he discloses a gain it will be taken from him and that in any case, periodically he will be called on for rate reductions to serve the needs of promising politicians, his perfectly natural economic disposition will lead him to treat the suspected but undisclosed potentialities of the market as an "ace in the hole." Furthermore, marginal electric business, whether arising from extending service to marginal customers or from intensifying the use of existing customers, involves more risk.

A refined regulatory procedure would recognize the propriety of a higher rate of return for enterprises which extend themselves to the limits of the market than for those restricting themselves to the more assured and stable consumption, and so encourage fullest exploitation of the market's possibilities.

Without the cooperation of regulatory authorities the regulated private enterprise can not succeed in building and rebuilding rate structures to fit the changing potentialities of the market for electricity. Prevailing regulatory practice has convinced the enterpriser that rate regulation is a one-way street, that rate regulation means rate reduction, that a mistake in rate reductions can be corrected only after long delay, if at all, by upward revisions. In certain other respects the pressure of rate regulation is directly inimical to exploiting the fullest potentialities of the market. Unjustified reductions in minimum bills or in the top rate have destroyed many opportunities for safely financing an exploration into the possibilities of large consumption by other classes of customers. They have too often been the price which private enterprise has had to pay to secure other changes in the rate structure. The minimum bill customer with unfortunate frequency buys electricity at the lowest price. Political pricing has been forced on private enterprise and without the protection or freedom which public power projects have.

Public power projects thus enjoy almost every advantage for experimenting with the possibilities of the market for electricity and if conducted in both the spirit and method of true experiment, the value of the results might outweigh their cost and the disturbance which they have caused. Their conduct to date has not convinced management or the investor in the electric industry that they are, or will be, disciplined by standards appropriate to an experimental undertaking.

A final question is inevitably raised. Assuming and admitting the experimental need and practicability of discovering the possibilities of the market for electricity, are there not cheaper and less disturbing ways of making such experiments? The several large and much applauded municipal undertakings are suggested as available. But here some important difficulties remain. Cities can not be financially as carefree as the federal agencies. The

substantial identity of local cost and local advantage place these undertakings under many of the same restraints which operate in the case of private enterprise. Some are under regulation, others seek ends distinctly in conflict with the idea of discovering the potentialities of the market they control.

If experimental purposes actually were the prime reason for public power projects, certain other alternatives should first have received consideration. Many possible arrangements, involving little of the outlay but none of the glamour of huge engineering projects, suggest themselves as alternatives, such as the comparatively untried possibilities of cost-of-service contracts, adaptations of the sliding scale, the business promotion and rate-of-return stabilization reserve, optional and alternative rate schedules, arrangements between commissions and companies providing for prompt rate increases in so far as promotional rates do not maintain the fair return. The fact that so few efforts of this character were attempted makes it difficult to avoid the suspicion that the urgency and vital social significance were not appreciated locally, that is, not nearly so well as in Congress.

III

The yardstick must be distinguished from the experiment. Experiments are undertaken to discover facts and relationships—not for direct or immediate profit. Their success is not measured by the excess of revenue over expense. The yardstick, however, implies a demonstration in terms of revenues and expenses under actual conditions, either comparable or capable of being adjusted to be comparable, so that the results can in fairness and safety be used as a standard. Since the conditions in no two operations are directly comparable, either as to (1) the necessary costs or (2) as to the potential character of the demand in the market served, it is asserted that a yardstick to be practically and honestly usable must be capable of adjustment for all the differences between the situations to be compared. The idea of direct comparisons has been widely propagandized during recent years and has unfortunately fallen on the fertile ground of general ignorance as to the elements of cost in the provision of electricity, the behavior of these costs, and the wide differences in markets. The illegitimacy

of direct comparisons of the results of public power projects with those of other enterprises calls for honesty and discipline in the use of any yardstick or measure. It calls, furthermore, for such a careful recognition, recording, and inclusion of all costs that corrections for direct non-comparability can be made. Unless such is both the intention and the practice, the yardstick device is both suspect and worthless.

A yardstick measurement which discloses a difference is much more useful if it also discloses the reasons for such a difference. By the process of comparative analysis the differences may be reconciled and the nature of the true advantages, if any, of one operation over another is disclosed. The factors which must be given recognition are of several orders or levels. Most elementary is the recognition of all capital and operating expenses actually incurred. This seems simple indeed except in cases of joint or multiple-purpose undertakings which obviously afford wide latitude for favoring that portion of the enterprise which is subject to comparative result analysis. Unless in this first step the allocations of common capital outlays are accurately made and with no desire to favor one purpose over another or to predetermine the yardstick result, all subsequent refinements are futile.

A second order of costs is not so obviously disclosed but is nevertheless too obvious to escape recognition. Full recognition of the expenditures made by one agency in favor of another affiliated agency is required. A lack of identity between the agency incurring the liability to pay interest and the agency making use of the borrowed capital does not becloud the facts as to the cost of the undertaking. Costs of this order may thus consist of (1) gifts or the free use of facilities or funds or (2) exemptions from levies which others must accept. Exemption from taxation in this sense represents no saving. It may be *expense avoidance* but constitutes *no cost reduction*. No comparative analysis in pursuit of the yardstick ideal may fail to adjust for all taxes alternatively and unavoidably payable by those agencies whose results are being measured.

Public power projects may actually not make the same outlays that private enterprise unavoidably experiences. Thus it may not actually have to pay interest because its controlling authority

borrowed the money and pays the interest. It may not incur any expenses of financing; it may incur little or no expense for insurance; it may pay no taxes to the state or the local communities, nor license fees on its automobiles, nor taxes on the gasoline consumed, no 3 per cent federal utility tax, no corporate income or undistributed surplus tax. It may receive rebates on railroad service, free postage, office facilities, legal service, and aid from other divisions of government. It may be relatively free from the expense of being regulated.

On the other hand, public undertakings have access to some economies which private enterprise cannot approach. The most important is the difference between the cost of capital to public and private undertakings. The difference is significant and in undertakings such as hydroelectric establishments, in which a large amount of capital at a slow rate of turnover is necessarily employed, the application of a lower money cost on the large base results in a substantial advantage.

Let us assume a public power-yardstick project so confident of its access to real economies that it recognizes all costs whether directly or indirectly incurred, all exemptions, depreciation, and a return on all the capital actually devoted to the undertaking at the long term borrowing rate of its governmental sponsor. Assume that for yardstick purposes rates are quoted to yield a revenue equal to such a constructive cost. Assume further that private enterprise, subject to an invidious rate comparison, adjusts its rates to meet the yardstick. Is the implication of the yardstick that private enterprise (in order to avoid unfavorable comparison) must forego a fair rate of return and accept rates which yield it only the 3 or $3\frac{1}{2}$ per cent representative of the long term borrowing rate of government?

It is rather generally understood that a central government can borrow the capital requirements for power projects at a lower rate (approximately half) than the rate of return necessary to induce free private capital to commit itself to such undertakings.

A simple calculation discloses the significance of the wide difference between the borrowing rate of government and the rate of return demanded by free capital secured only by the future earning power of the undertaking. Assume the borrowing rate of govern-

ment at 3 per cent and for simplicity of calculation, a 6 per cent rate of return for private enterprise. If the ratio of revenue to capital employed is as one to five, the operations of the private enterprise would need to prove 17.5 per cent more economical than the yardstick undertaking in order to earn a 6 per cent rate of return under the same rates.

The purpose of yardsticks which do not recognize the necessary and unavoidable cost of capital to private enterprise would seem fairly construable as an effort to apply a form of extra-legal pressure so as to enforce the acceptance of a lower rate of return than can legally be enforced.

Primarily in consequence of political policies of recent years, substantially no electric utility could today raise equity capital at a yield which the industry can earn. It should be equally clear that the rate at which a central government can borrow when the loan is secured by the power to tax does not reflect the value of money invested in a public power project. A true yardstick will recognize the *annual value in the employment to which capital is put and not the price at which funds can be borrowed.*

Even when the factors of elemental integrity and elementary arithmetic are assured, there remain problems of yardstick use and application which make the device one of doubtful practical value. The yardstick naturally expresses itself in the form of rates or a rate schedule, but the same rate schedule will not produce the same revenue in any two markets; or to put this in another way: even after having adjusted for comparable cost, the rates necessary to cover that constructive cost in two different markets would differ as the character and distribution of the demand in the two markets differ. Thus yardsticks, no matter how honestly and accurately constructed, are not in the form of a comparable rate schedule. It is entirely possible that the respective rate schedules of two communities (each perfect in that it invites the largest use that will pay for itself) would, if transplanted to the other market, call forth a lower use or fail to return a revenue covering total cost.

Rates should not and legitimately cannot be directly compared. The only form of yardstick comparisons that would serve useful and honest purposes are those arrived at after exhaustive investigation of all the circumstances in situations to be compared. The

public power project is not essential to the ascertainment of more complete and reliable facts as to the cost of electricity. Moreover, the experimental purpose and the yardstick purpose are in such conflict that one or both would have to give way. A compromising of these conflicting ends will leave us nowhere as to either purpose. Numerous existing undertakings, public and private, affording more immediately comparable and representative circumstances, are available for fruitful study. It is unfortunate indeed that some of the funds spent in the past on so-called investigations of utility matters could not have been used in part for these purposes which in the long run would prove socially so much more useful.

IV

Another purpose of public power projects, not so openly avowed but yet clearly indicated, is to serve as a birch rod for the punishment of an intransigent industry. The extent to which this subversive purpose has been operative is impossible to determine, but here, action is more convincing than words. To the investor in the electric industry, the public power project means recrimination, an expression of animus, an effort to do by indirection and circumvention what cannot legally be accomplished by direct action through established means. The investor, actual or potential, will not be at all convinced as to the value of experiments or the utility of a disciplined yardstick. He is today confirmed in his conviction that his government is out to destroy private enterprise and the equity investment in the electric industry. Nothing is to be gained by not facing the facts. We need no public opinion poll to explain why the source of new capital for utility enterprise has all but vanished. If the investor is mistaken, the proponents of public power have done a very bad job in creating a state of mind from which our economic organism has sustained serious injury. Should it be that the zealot and propagandist have unfairly heralded the public power project, its sponsors and managers could at this critical juncture, to the great advantage of all, disavow all destructive intent and methods by convincing action to the contrary. With a relapse threatening our incipient recovery, the restoration of utility investor morale might singly be adequate to give recovery both direction and real substance.

Recourse to public power projects for purposes of regulating electric rates implies a dissatisfaction or lack of faith in the processes of regulation. While the detailed practice of regulation, through the agency of commissions and under the operation of the principle that a utility is entitled to a fair return on the fair value of property used and useful, leaves much to be desired, yet the impression is readily gained that the principal objection to regulation from certain quarters is the fact that under it the electric industry has in a measure been protected in its legal right to earn a fair return. When seeking such ends, public power projects can hardly be viewed as a contribution to the improvement of regulation. The introduction of competition, invidious rate comparisons, threats of destructive competition, and forced sales at distress prices, appear to be circumvention of the protection which private enterprise has found in the regulatory formula. In substance, such a view of the place and purpose of public power projects would seem to be a question of public morals and of the integrity of our social arrangements rather than one of economics. Among economists, the evils and losses of competition among electric undertakings are well recognized. It is understood that competition with an enterprise of superior resources, not hampered by the necessity of meeting costs with revenue, tends to become unfair and ends in disaster for any private enterprise that dares to resist. That rates can be reduced by such direct action is obviously true. That consumers will buy more at prices so low as not to cover cost is also obvious. That a policy of competition costs more than it gains for society as a whole is also generally true and that irrespective of how much Peter may gain out of the injury to Paul. The economist knows and understands that the amount of rate reductions obtained by coercion and duress is not a measure of the social gain. In so far as the rates exacted do not represent the price which most economically balances the demand and supply for electricity, they evidence only the transfer of wealth and income from one person to another with no contribution to the material welfare of society as a whole.

Competition in the rendering of electric service is clearly unsuited to bring about economic balance. Government competition is most unreliable. The access which government has to overwhelming resources is not conducive to the exercise of re-

straint or the development of a disciplined conduct. It is too much to expect of humans that they will be able to resist the temptation to use and demonstrate the power at hand. Only a strict limitation of resources and the requirement that all costs be covered by revenue keeps competition within the limits of fairness and avoids either inordinate waste or the capitulation of private enterprise to the will of the state.

If public policy dictates public power projects, existing enterprise adversely affected should be purchased at a fair price. Negotiation under such circumstances is not to be trusted. The state should protect itself against its tendency to use the threat of alternatives to force an unfair price, by agreeing to an arbitration valuation.

The waste and destruction of competition immediate or threatened is not an unavoidable aspect of public power projects, it is not inherent in the experimental purpose, it need have no place in a legitimate yardstick undertaking, it has no justification under any circumstances. Public ownership need not imply or involve competition. In fact, no defensible purpose of public power projects is aided by recourse to competition or threat of competition. Under competition even though restrained, the purposes of experimentation cannot be achieved. In the presence of competition no constructively useful yardstick can be established, and in the face of competition no demonstration of the full possibilities of public ownership is possible. Competition and the threat of competition are the false notes in the public power project program.

The economist may not appropriately, as such, be interested in ends, but the comparative cost of alternative means toward the chosen end is his legitimate and peculiar concern. The manner and method of accomplishing any of the purposes of public power are from the economist's point of view of more vital concern than whether there shall be public power projects. The manner in which they are administered will determine whether they serve justified purposes and whether the injury to other elements in society exceed in cost the value of the gains. A thorough going investigation by Congress at this time rather than after the damage has been done is distinctly in order. It might, among other things, protect the public power idea from the results of its economic abuse.

THE PUBLIC UTILITY ACT OF 1935: ITS BACKGROUND AND SIGNIFICANCE

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The Public Utility Act of 1935 marks a long step toward the effective regulation of public utilities. Its significance extends far beyond the industries directly concerned. Indeed it is probably not too much to say that upon the success or failure of this act in its practical application depend the future of commission regulation in the United States and the direction our general public utility policy will take.

I

The act can be understood and interpreted only in the light of the conditions which led to its adoption. It came as the result of an extensive investigation of the gas and electric power industries carried out by the Federal Trade Commission at the direction of Congress, supplemented by the reports and recommendations of congressional committees and other federal agencies concerned. It was also based upon the conviction that state regulation had broken down, or at least proved inadequate to meet the problems involved; and a realization of the fact that the increasing volume of gas and electric energy passing in interstate commerce was, in the absence of federal legislation, beyond either state or federal control. The problem was further intensified by the fact that these industries had developed in a haphazard way, without regard to the larger ends of regional coordination and integration.

The conditions revealed in the various investigations grew primarily out of the uncontrolled expansion of the electric power industry in the years immediately preceding and following the World War. Technological improvements made the advantages of combination and large-scale production increasingly clear. Almost in the space of a single decade small local plants were united into

great systems reaching into many states and serving thousands of scattered communities. By 1929 sixteen large utility groups were producing approximately 80 per cent of all the electric energy produced by privately owned plants in the United States. Three of these groups controlled more than 45 per cent of the product.¹ Thus while the service remained essentially local, means of production and administrative control had become regional or national in scope.

The holding company was the corporate device by which this transformation was effected. In the beginning the holding company rendered useful and valuable service. The temptation of private and personal gain, however, proved too strong, and the advantages of the holding company were soon negated by questionable corporate practices over a large portion of the industry.

The investigation of the Federal Trade Commission covered an exceptionally large cross-section of the gas and electric industries in the United States. The commission concluded that in these industries the advantages of the holding company form of organization were more than outweighed by the abuses and questionable practices found. In its conclusions the commission classified these abuses under 19 general heads.² Only a few outstanding examples can be touched upon here.

Holding companies were pyramided in one instance to the tenth degree, frequently to the sixth degree, and usually to the fourth or fifth degree.³ Control was exercised often through the ownership of only 10 per cent or 12 per cent of the securities of the underlying operating companies, sometimes through less than 5 per cent. Profits were pyramided by the same process, rising, in times of prosperity, to fabulous returns for top holding companies.

In many instances sub-holding companies were used primarily to further the interests of corporate insiders who passed up and down between operating companies and top holding companies, sitting on both sides of the transactions and bargaining in effect with themselves in the matter of contracts for purchasing,

¹ *Utility Corporations*. Senate Document 92, Part 72-A, 70th Congress, 1st Session, p. 38.

² *Utility Corporations*. Senate Document 92, Part 73-A, 70th Congress, 1st Session, p. 62.

³ Hearings, House Committee on Interstate and Foreign Commerce, H. R. 5423, 74th Congress, 1st Session, Part I, p. 355.

construction, engineering, and managerial services. By this means, as well as through excessive charges for interest and commissions, the earnings of subsidiary operating companies were siphoned off.

Arbitrary write-ups of the value of capital assets were widespread, and fantastic overheads were capitalized to balance excessive security issues and create seeming surpluses and reserves. The capital assets of the companies examined were found to have been written up by more than a billion dollars.⁴ Inflation of capital structure also resulted frequently from the sale of properties or securities to subsidiaries at large profits.

Through manipulation of security markets, recapitalizations and stock dividends, prices of stocks were sometimes pushed to unreasonable heights in the stock market. Enlargements of outstanding securities were frequently accompanied by the sale of low-priced voting or management stock to those in control. Some officials did not hesitate to augment their personal fortunes by speculating in the stock of their own companies while these companies were carrying out marketing campaigns, buying with one hand and selling with the other.

Naturally all these practices resulted in unsound methods of accounting and unfair distribution of returns as between the various classes of security holders. They resulted also in capital structures sometimes beyond analysis or comprehension even by those in control.

Thus the holding company was diverted from its original purposes. The professional public utility man had largely passed from the managerial stage. The promoter and the financier had gained control.

Not all the great holding companies can be charged with these abuses. The investigation showed, however, that abuses were widespread. The mere possibility of their existence is sufficient cause for concern. Apparently under the Holding Company Act about one-third of the industries covered will be practically exempt, a third will require considerable change, and the remainder will have to undergo complete reorganization.

Nor can the breakdown of some of the systems be attributed primarily to the depression. The depression merely revealed the

⁴ *Utility Corporations*. Senate Document 92, Part 72-A, 70th Congress, 1st Session, p. 845.

true situation and hastened the process. The seeds were sown in the early twenties. The results were inevitable. As early as 1926 Professor Ripley analyzed current practices in the industry in a masterly way. These practices, he said, would, if not restrained, "entail grave dangers not only to the industry or its owners alone, but perhaps throughout the wider domain of public contentment and security".⁵ It is a sad commentary on the state of our corporation laws that we had to depend upon the depression to reveal the processes of financial legerdemain.

II

Meanwhile the states in their efforts to regulate the conditions thus created, encountered insuperable barriers. These barriers arose partly from the financial and jurisdictional limitations of state utility commissions, partly from the legal status of the holding company, and partly from the traditional attitude of the utilities and the courts.

Regulation is at best a highly technical process, requiring economic, engineering, and legal talent of the highest order with generous outlays of time and money. State commissions with their severely limited finances and staffs were ill-equipped for the task.⁶ Effective regulation requires also unified action over the same area as that occupied by the industry to be regulated. No such uniformity of legislation or purpose has existed, or can exist, among the states. There has been some fruitless discussion of state compacts, and a considerable number of individual state utility laws have been adopted in recent years. Yet as late as 1934, there were 18 states asserting no jurisdiction over capitalization and security issues of electric utilities; 12, none over accounting; 26, none over depreciation; 7, none over rates or service.⁷

With respect to the holding company, the situation is still more difficult. Under the current legal doctrine a corporation which controls and directs a public utility through stock ownership is not itself "affected with a public interest" and hence not subject

⁵ William Z. Ripley, *Main Street and Wall Street*, p. 278.

⁶ William E. Mosher and Finla G. Crawford, "Our Underfinanced State Commissions," *Public Utilities Fortnightly*, November 10, 1932, p. 543, and November 24, 1932, p. 622.

⁷ Hearings, House Committee on Interstate and Foreign Commerce, H. R. 5423, 74th Congress, 1st Session, Part I, p. 496.

to public utility regulation; nor are its legal, financial and general advisory services regarded as coming within the scope of interstate commerce.⁸ Thus the door to direct regulation was in effect closed. The only avenue left was the indirect approach through control of the contractual relations between the local operating company and the parent holding company.

Progress in this direction, however, was slow, with largely ineffectual results. After nearly ten years of litigation the Supreme Court held that in determining the reasonableness of intercompany payments, the cost of the service to the parent company might be taken into account.⁹ This, however, was an empty victory. By what possible process could a state commission determine the costs incurred by a holding company chartered by another state and having its principal place of business perhaps in still another state?

But probably the most serious handicap of state commissions lay in the attitude of the utilities and the courts. The idea of private property is perhaps more highly developed in the United States than in any other country. The utilities have too often failed to distinguish between private business and quasi-public business, between private property and "property dedicated to a public use". The tendency has been therefore to resist regulation, to turn to the courts on every available pretext, and to encumber regulation with legal entanglements involving interminable delays and sometimes enormous expense.

The point is well illustrated by the recent action of some of the great holding companies in securing restraining orders and otherwise attempting to withhold needed information from state and federal authorities. It finds more forceful illustration in the recent New York Telephone case, which ended practically in a stalemate after 12 years of almost continuous litigation involving an expense variously estimated at from \$6,000,000 to \$10,000,000.

The courts are rightly charged with the interpretation of the law. Unfortunately they have at times been inclined to substitute their judgment for the judgment of state commissions on both the law and the facts. This is particularly true in cases involving

⁸ *Federal Trade Commission v. Smith*, 42 Federal 490.

⁹ See David E. Lilienthal, 29 *Columbia Law Review*, 404, and 31 *Columbia Law Review*, 189.

questions of valuation for rate making, naturally the most controversial issue in the entire regulatory procedure. Questions of valuation still rest upon the case of *Smyth vs. Ames*, decided in 1898. This case with its enumeration of outmoded and conflicting elements of fair value may be used to justify any conceivable method of valuation. It is inadequate and unsuited to the changed conditions. Yet it has been cited in every important rate case since 1898, and otherwise made the basis of sonorous pronouncements about the law of the land.

State commissions thus carry on their work under the pall of appeals and reversals by the courts. New duties are all the while accumulating with no corresponding provision to meet the cost. The natural alternative has been to assume for the most part the judicial rôle and so far as possible, limit the work to mechanical routine.

Interstate transmission of electric energy rose from 9.6 per cent of the total energy produced by private companies in 1926 to approximately 18 per cent in 1933. These figures for the country as a whole reveal the situation only in part. In some sections exports or imports make up more than 50 per cent of the energy produced or consumed in individual states.¹⁰ Most of this business was, in the existing state of the law, beyond either state or federal control. Legally the situation was not unlike that left by the *Wabash* decision in 1886, which precipitated the adoption of the original Interstate Commerce Act.¹¹

All these forces combined to make inevitable federal regulation of public utility holding companies, as well as the interstate transmission of gas and electric energy. The Public Utility Act of 1935 was the result.

III

Broadly stated, the purposes of the act are to simplify the corporate structure of gas and electric holding companies doing business in more than one state; to prevent over-capitalization and other questionable practices; to regulate the sale and transmission

¹⁰ Hearings, House Committee on Interstate and Foreign Commerce, H. R. 5423, 74th Congress, 1st Session, Part III, p. 2144.

¹¹ See *Attleboro Steam and Electric Company Case*, 273 U. S. 83; also *Pennsylvania Gas Company Case*, 252 U. S. 23.

of electric energy in interstate commerce; to aid and strengthen state regulation by providing a national clearing house of information; and to encourage the creation of economically and geographically integrated utility systems.

The act is ably and ingeniously drawn evidently by persons acquainted with the complicated corporate and legal problems involved. It is in reality two acts in one: Title I, the Public Utility Holding Company Act, administered by the Securities and Exchange Commission; and Title II, the Federal Power Act, administered by the Federal Power Commission. A third title covering the transmission and sale of natural gas was finally omitted.

Both acts carry full provisions covering accounts, records and reports, and administrative and judicial procedure, including appeals running to designated federal courts and thence directly to the United States Supreme Court. Both acts limit interlocking control and speculative profits of officers and directors. In both, the commissions are given broad discretion within the limits of certain positive and negative procedures outlined; the guiding principle, constantly repeated throughout the act, being the interest of the public and the protection of the investors and consumers.

Title I. The Public Utility Holding Company Act.—The Holding Company Act covers gas and electric utility holding companies, and their subsidiaries, operating in more than one state. Federal jurisdiction is asserted over these companies on the basis of their use of the mails and other instrumentalities of interstate commerce, the inability of the states to control, and the necessity of regulation in the public interest.

Holding company is defined as any company which exercises a voting control over as much as 10 per cent of the outstanding voting securities of a public utility or which is found, after notice and hearing, to exercise a controlling influence over the management and policies of such a public utility. Broad exemptions are provided, both directly and in the discretion of the commission.

The act is put into operation by requiring the registration, by December 1, 1935, of all holding companies under its jurisdiction, and forbidding the use of the mails and other instrumentalities of

interstate commerce to companies failing to register and furnish the requisite information.

Naturally the heart of the act lies in section 11, containing the compromise provision which replaced the widely advertised "death sentence". The commission is directed to examine the corporate structure and properties of the companies concerned and to require companies to take action with a view to eliminating unnecessary complexities, distributing voting power equitably, and confining the business to the activities reasonably appropriate to the operation of an integrated public utility system. Exemptions are provided, however, in cases where loss of substantial economies would ensue, where operations are primarily intrastate, or where the systems are not so large as to impair the advantages of localized management, efficient operation or the effectiveness of regulation. The elimination of pyramiding beyond the second degree is expressly required.

Plans for reorganization may be submitted by the companies, or proposed by the commission, or subject to the rules of the commission, by any person having a *bona fide* interest. The commission is empowered to approve reorganization plans, after due notice and hearing, and to bring action in designated federal courts for the enforcement of its orders. The recent disappointing experience in the effort to secure voluntary consolidation of railroads explains, and no doubt justifies, the rather elaborate procedure outlined. Difficulties will necessarily be encountered in the process of reorganization and consolidation. The task need not prove insuperable, but it will probably require a longer period than the maximum of two years from January 1, 1938, as provided in the act.

The act thus proceeds to eliminate super-holding companies and to remove from the capital structure elements having no useful economic or social function. It bears the clear implication of long-range planning, with a view to simplifying corporate structures and coordinating the industry into regional systems.

Security issues, as well as the acquisition of the securities or capital assets of other companies, are subject to the approval of the commission. Exceptions are made of subsidiaries whose issues are authorized and controlled by the states. New long-term

securities are limited to first lien bonds on physical property and par value common stock with voting rights. Reasonable latitude is permitted, so long as the securities are adapted to the financial structure and earning power, and distribute voting power fairly. Fees and commissions must be reasonable, and applicable state laws must be complied with.

With respect to transactions between holding companies and their subsidiaries, upstream loans are forbidden, and downstream loans are subject to the rules and regulations of the commission. Dividend payments, as well as the retirement or redemption of securities, are subject to such rules as the commission may deem necessary to safeguard working capital and protect financial integrity.

Service, sales, and construction contracts are prohibited between a holding company and its subsidiaries, but permitted between subsidiaries and mutual and other service companies under conditions approved by the commission. Economical service at reasonable cost is the required standard.

Title II. The Federal Power Act.—The Federal Power Act was less controversial than the Holding Company Act. It is more permanent and probably more far-reaching in its effects. Part 1 of this title is devoted to amendments extending and clarifying the provisions of the Federal Water Power Act of 1920; part 2, to the transmission and sale of electric energy at wholesale in interstate commerce; and part 3, to administrative procedure. The act specifically provides that federal regulation shall extend only to those phases of the business which are not subject to state regulation. Clearly the intention is to limit jurisdiction to the field in which the states have no legal or constitutional authority.

Rates, service, and charges must, under the law, be reasonable and without undue preference. The commission is given the usual powers, after notice and hearing, to approve or suspend rates and to prescribe reasonable rates.

Just as provision for simplification of holding company structures constituted the heart of the Holding Company Act, so the provision for voluntary coordination of facilities may be said to constitute the central point of the Power Act. The object, as asserted in the act, is to assure "an abundant supply of electric

energy throughout the United States with the greatest possible economy and with regard to the proper utilization and conservation of natural resources."

Control of rates alone carries no assurance of the accomplishment of this objective. Proper organization of power facilities and resources is necessary. The commission is therefore directed to divide the country into regional districts for voluntary interconnection and coordination, and to promote such interconnection and coordination. The commission is empowered, upon application of a state commission or a public utility, to order the interconnection of facilities, if this procedure is found to be in the public interest. The commission, however, is not empowered to require the enlargement of generating facilities or the sale or exchange of energy when this would impair the utility's ability to render adequate service to its customers. Broader powers are granted in time of war or emergency. The primary objective is planned coordination of the nation's power resources.

Sale, lease, or other disposition of facilities, merger or consolidation, and acquisition or issuance of securities are, with reasonable limitations, subject to the approval of the commission after notice and opportunity for hearing. Before taking action the commission must give notice in writing to the governor and state commission of each state affected.

Broad powers of investigation are conferred upon the commission, acting on its own motion or pursuant to the request of a state commission. The commission may aid state commissions, where necessary, in determining valuations and costs in connection with out-of-state properties. It is also authorized, in cooperation with the utilities, to ascertain the actual legitimate cost of the property of every public utility, and for rate making purposes, other facts bearing upon such cost and the fair value of the property. This is the remnant of an earlier provision which would have required prudent investment as the rate base for utilities under the jurisdiction of the Federal Power Commission. The commission may, after notice and hearing, fix rates of depreciation and require public utilities under its jurisdiction to carry proper and adequate depreciation accounts.

Further, the commission is authorized and directed, as a basis for

recommending legislation, to conduct investigations regarding the generation, transmission and sale of electric energy produced by any agency, public or private, in the United States and its possessions; and so far as practicable, to secure and keep information regarding ownership and control of facilities, costs, rates, and services to all classes of consumers, together with the relationship of all such facts to the development of navigation, industry, commerce, and the national defense. The results of these investigations are to be reported to Congress.

Throughout the act provision is made for close cooperation between the Federal Power Commission and the state commissions. With this end in view the commission is empowered to refer matters of common interest to duly constituted joint boards; to confer and hold joint hearings with state commissions; to make available to state commissions its trained experts as witnesses, as well as such information and reports as may be helpful in the regulation of public utilities; and similarly to avail itself of the cooperation and services of the state commissions.

IV

The act called forth more emotion perhaps on both sides than any act of Congress in recent times. Unfortunately, the ensuing discussion engendered, in many of its phases, more heat than light. Calm, dispassionate appraisal is difficult. The act has been praised, on the one hand, as the most satisfactory regulatory measure ever adopted by Congress. On the other hand, it has been condemned as the death warrant of a twelve billion dollar industry, a maze of complications, so designed as to destroy private initiative and to relegate state authorities to a position of stultified impotence.

The act is not perfect, but it is, on the whole, a carefully prepared, constructive piece of legislation designed to meet conditions which apparently could not be met in any other way. It serves to correct grave abuses; to control operations which are beyond the power of individual states to control; and to develop a coordinated electric power system, which the forces of private initiative seemed unable or unwilling to do. It deals with the realities of the situation and recognizes the fact that the problem has become national

in scope and hence can be solved only through the cooperation of state and national agencies.

The plan of simplification and regulation proposed need not be destructive of private initiative and enterprise. Procedure under the act is, in the main, discretionary rather than mandatory. The element of compulsion appears at only a few points. It was necessary in the simplification of holding company structures and the development of a consistent plan of coordination. In the matter of interconnections there is compulsion only upon complaint of another utility or a state commission and not even then if the procedure involves enlargement of facilities or impairment of the utility's ability to serve its own customers. In all other phases of the industry private management is left in much the same position it occupied before.¹² Regulation has been strengthened, especially in matters of finance, but few persons, even representatives of the utilities themselves, would deny that this procedure was necessary.

Likewise the act contains little to impair or diminish the real powers of the states. The act is apparently intended to supplement and not to supersede state regulation. This purpose is explicitly stated and observed throughout. Federal authority is used primarily to strengthen and assist the states in exercising their regulatory powers. Comparisons with the provisions of the federal Interstate Commerce Act in this connection are beside the point. There the federal powers are purposely made plenary and exclusive.

Under the conditions existing the choice was clearly between federal regulation and cooperation and no regulation at all. If the question of state rights is raised, it may be said that new conditions have arisen and new methods of procedure are required. It might also be pertinent to ask what rights the individual states have enjoyed in the regulation of public utility holding companies with principal operations beyond their jurisdiction and hundreds of subsidiaries scattered throughout the United States.

That the act is a complex and intricate piece of legislation, and that its administration will involve great difficulties, cannot be denied. It covers a complicated situation. The difficulties are

¹² Oswald Ryan, "The Power Act of 1935," *Public Utility Fortnightly*, July 2, 1936, p. 3 et seq.

not insuperable, however, if the act is sympathetically, patiently and understandingly administered with the whole-hearted co-operation of the industries concerned. Some of its more drastic features arise no doubt from the conscious effort to state in explicit language conditions which are implied in every regulatory measure but which have been made the basis of prolonged litigation in the past.

On the question of constitutionality, the Power Act has not been and probably cannot be successfully challenged. The Holding Company Act introduces several features involving points not settled in the law. As a layman, the writer would not venture upon the intricate legal questions involved. One cannot help feeling, however, that the term "commerce" will eventually be found broad enough to cover the transactions and the complex business relationships existing between holding companies and their subsidiaries located in distant states.¹³ Both acts contain provisions for separability of sections on questions of constitutional validity.

The real test of a public utility law lies in its administration. It is perhaps too early to speak of the results attained in this respect. The progress of both commissions, however, is in every way encouraging and reassuring.

Both commissions have set up organizations with divisions and staffs well adapted to the functions they are expected to perform. They have completed a large amount of foundational work, and are making studies and establishing standards which give promise of an active, intelligent, and impartial administration of the law.

Down to the present time¹⁴ only 85 holding companies have registered with the Securities and Exchange Commission, comprising, from the point of view of combined assets, about 30 per cent of the industry subject to registration under the act. Unfortunately the list of registrants is characterized by the absence of many of the great holding company systems, these having chosen to await the results of the constitutional issue now pending in the courts. The crucial point in the work of this commission will come early in 1938, when, if the act is sustained, the reorganizations incident to simplification and integration must begin.

¹³ See "Federal Regulation of Public Utility Holding Companies," 45 *Yale Law Journal*, 468.

¹⁴ December, 1937.

The Federal Power Commission has recently adopted and published a plan for cooperation with state commissions, as well as a tentative plan of power regions and districts in the United States. Pursuant to earlier orders and resolutions of Congress, the commission has carried out two great national surveys, one covering power resources and capacity and the other covering urban and rural rates and service. These surveys have brought together the most extensive and most valuable body of data ever collected on the electric light and power industry in the United States.

V

Regulation in the modern sense began with the Wisconsin and New York laws in 1907. During these thirty years we have been constantly reminded that regulation is on trial. It is on trial today as never before. The American people are still committed in large majority to the principle of regulation under the regime of private ownership and operation, but regulation must be made to accomplish the purposes for which it was intended. Current proposals of regulation by negotiation, by state compacts, or through government-owned "yardsticks," are but admissions that regulation has proved ineffective and disappointing in its results. So much so that there is grave danger lest we turn to methods untried and measures which have not been maturely considered. The choice is between regulation and public ownership. There is no chance of return to the old system of unregulated public service enterprise.

Regulation can and should be made effective, but this implies a wide departure from procedures developed in the past thirty years. In developing new procedures, several principles must be recognized and observed.

Regulation will rise or fall with the ability of regulatory commissions to meet their responsibilities in an effective way. Public utility laws must be administered with due regard for the rights and interests of the public and just appreciation of the problems of the utilities concerned. The task is intricate and difficult. Everything depends upon provision for competent and well equipped staffs. State utility commissions should be adequately manned and financed.

Commissions are charged with the active administration of the

law from the broad point of view of public policy. They were never intended to be primarily judicial bodies. They are primarily administrative agents of the legislature, equipped with legislative, executive and judicial powers. If these powers cannot be reconciled, special courts should be created to meet the intricate legal problems that arise under public utility law.

Close cooperation should be developed between state and federal agencies. Effective regulation is possible only where the regulative authority coincides with the area occupied by the utilities to be regulated. In this respect the present act has constructively pointed the way.

Public utilities should recognize and accept their true legal status as quasi-public corporations. This means recognizing the difference between private property and "property devoted to a public use." It means the acceptance of regulation and all it implies. Any regulation worthy of the name must impinge to some extent upon management, as well as upon some of the rights commonly associated with private property.

The fact should not be overlooked that the public makes substantial contributions to the utility, comparable to the contributions made by the stockholders. These contributions include, aside from gifts of tangible property, the use of public streets, highways and streams, the right of corporate existence, monopoly privilege with a practically assured return, and finally, where need be, the exercise of the state's own power of eminent domain. The public has the right, therefore, to demand all the facts and full protection of its interests.

Public utilities should be content with a reasonable return on their investment. The public should be willing, under proper conditions, to guarantee a minimum return. Public utilities now represent approximately one-fifth of the productive capital in the United States. The amount of property involved has become so vast and so complicated that it must be removed from the field of speculation, if regulation is to succeed. This means that there must be, by agreement or by legislative or judicial rule, a definite and stable rate base, thus removing a source of friction which for a generation has hampered and blinded both sides. The problem of changes in the general price level can be met by providing for corresponding changes in the rate of return.

The idea of basing public utility rates primarily upon investment and cost of the service is not new. It has been recognized and supported for many years by public utility commissions, notably in Wisconsin and Massachusetts, but through extension of the "due process" clause of the federal constitution it has invariably failed of acceptance in the higher courts. The principles involved are ably expressed in the minority opinion of Justice Brandeis, concurred in by Justice Holmes, in the *Southwestern Bell Telephone Company* case:¹⁸

The so-called rule of *Smyth vs. Ames* is, in my opinion, legally and economically unsound. The thing devoted by the investor to the public use is not specific property, tangible and intangible, but capital embarked in the enterprise. . . .

The investor agrees, by embarking capital in a utility, that its charges to the public shall be reasonable. His company is the substitute for the state in the performance of public service; thus becoming a public servant. The compensation which the Constitution guarantees an opportunity to earn is the reasonable cost of conducting the business. Cost includes not only operating expenses, but also capital charges. . . . A rate is constitutionally compensatory if it allows the utility the opportunity to earn the cost of the service thus defined. . . .

It (the rule of *Smyth vs. Ames*) has failed to protect either capital or the public. It leaves open the door to grave injustice. To give capital embarked in public utilities the protection guaranteed by the Constitution, and to secure for the public reasonable rates, it is essential that the rate base be definite, stable, and easily ascertainable. . . .

The Public Utility Act of 1935 thus represents a long step in the direction of effective regulation. It holds distinct promise for the future, despite the controversial issues it has raised. Much will depend upon its administration. More will depend upon the response of the utilities themselves. Indeed the act might not inaptly be called a venture in cooperation. Its successful application will require the development of a high degree of cooperation among all the parties in interest—cooperation between the state and federal commissions and, above all, between these commissions and the utilities concerned.

¹⁸ *State ex rel. Southwestern Bell Telephone Company v. Public Service Commission of Missouri*, 262 U. S. 276.

CHANGING LEVELS IN PRODUCTION, EMPLOYMENT, AND RELIEF

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In order to interpret the problems of unemployment and the need for relief in relation to changing levels of production, it is essential to distinguish several categories of "persons without jobs." The unemployed are divided into (1) unemployed not on relief and (2) unemployed on relief. Probably never more than half of the unemployed have been in the latter category, and the ratio usually has been much less.

The persons on relief are divided into (1) employables and (2) unemployables. The employables on relief are divided into (1) first priorities, the heads of families who have precedence over other employables in the same family, and (2) the employables other than first priorities. Since families are generally removed from relief rolls when one member obtains employment, it is only required that first priorities be employed in order to reduce the relief load, but to provide employment for all employable persons on relief (total priorities), a much larger expansion of employment would be required. Also there are the unemployed not on relief, a part of whom are potential candidates for the relief rolls. Any given expansion of employment might conceivably be (a) entirely from the unemployed not on relief, thus leaving the relief load unchanged, (b) partly from the first priorities, thus reducing the relief load, and (c) partly from total priorities, thus reducing the relief load but not as much as in (b). Of course, in cases (b) and (c) there may be an offset by accession to the relief rolls of unemployed persons not previously on relief. As the duration of unemployment lengthens, it is reasonable to expect increasing numbers of the unemployed to need relief quite apart from changes in the level of employment. Also for similar reasons there is no basis for expecting relief rolls to decline simultaneously with and proportionally to increases in employment.

The universal custom of using the series of *persons* unemployed is itself misleading when it comes to interpreting the need for relief, which is essentially a family problem. If all the unemployed workers were in multi-worker families where there were other employed workers, we could have a very large number of unemployed *persons* and no relief problem at all. It is for the most part the series of totally unemployed *families* which makes a relief problem. Consequently the proportions of one- and multi-worker families in the various localities are important factors affecting the need for relief. Likewise the incidence of unemployment upon supplementary workers (i.e., other than family heads) has been much neglected.

A further general problem is that of the relationship between production and employment. It is a familiar fact that a progressive society requires less and less labor per unit of output. However, the rate or both technical change and expansion varies widely among the different industries. Any given expansion in production will affect differently both employment and the need for relief, according to the industry and the locality in which it occurs.

Data on the foregoing problems are not adequate for a conclusive answer. The following attempts mainly to show more about the nature of the problems.

I

The parts of a progressive economy do not change proportionally. The population increased 200 per cent from 1870 to 1930. At the same time the number of gainfully occupied workers increased 300 per cent. In 1870, 32 per cent of the population was gainfully occupied; in 1930, 40 per cent. In 1870, over half of those gainfully employed were in agriculture; by 1930, less than one-quarter were so engaged. Employment in agriculture reached an absolute peak in 1910. Minerals and manufacturing employed fewer workers in 1930 than in 1920. From 1870 to 1930, employment in transportation and communication and in public service increased twice as much as all employment.

In general, the output of producers' goods has grown at a faster rate than the output of consumers' goods. The most rapid rates of growth have been among the new industries such as aluminum

and cigarettes, while the slowest have been among the older industries such as whaling and roofing slate. Although the extreme difference in rates of growth is amazing, they all have a common factor in that eventually they tend to diminish. Retardation of the rate of industrial growth is characteristic of a progressive society.¹

The importance to employment of these factors lies in the fact that some industries offer greater stability of employment than others. The decline in relative importance of agriculture and the increase in manufacturing has greatly increased the instability of employment. The same is true of the relatively faster growth of producer goods and durable goods industries over consumer goods and non-durable goods industries. Since a growing share of production is in the form of durable and luxury goods and since the demand for such products is more unstable than the demand for staples, there is a corresponding decrease in both the short- and the long-term stability. Moreover, it is likely that the average life-span of industries is being shortened by the increase in both the birth-rate of new industries and the death-rate of old ones.

Eighteen industries, appearing since 1879, employed one-seventh of the total wage earners in manufacturing industries in 1929. Most important among these industries are motor vehicles, electrical machinery, rayon, aluminum, typewriters, refrigerators, aircraft, and motion pictures.

One aspect of the problem of the strain of readjustment is reflected in the increasing rate at which wage earners leave specific industries. During the three five-year census periods, 1899-1914, only 21 out of every 1,000 employees withdrew or were forced out of the industry in which they were working. The change relates to the net change between the census periods and therefore greatly understates the actual numbers leaving the industry. During the three biennial census periods, 1923-29, 49 men out of every 1,000 withdrew or were forced out of the industry.²

The entrance of workers into manufacturing industries shows opposite results during these periods. During the three pre-war census periods, 1899-1914, the average rate at which wage earners

¹ See Arthur F. Burns, *Production Trends in the United States Since 1870*.

² Frederick C. Mills, *Economic Tendencies in the United States*, pp. 419-423.

were entering manufacturing industries was 15 per cent. For the three post-war census periods, 1923-29, the corresponding rate was 4.5 per cent. Allowing for the difference in census periods, this comparison indicates that the rate of training and introducing wage earners to factory life was declining rapidly. The era of rapid growth of factory employment was over before the twenties.

An interesting aspect of the growth of manufacturing industries can be seen in comparing the value added by manufacture and the ratio of wages to it. While the value added by manufacture per wage earner increased 500 per cent between 1849 and 1933, the wages as a percentage of value added by manufacture gradually declined from 51 per cent in 1849 to 36 per cent in 1933. This indicates the growth of more capitalistic processes of production, which spells greater instability in employment.

The phenomenal expansion of factory employment occurred during the nineteenth century. Between 1920 and 1930 the portion of wage earners employed in manufacturing and mechanical industrial activity actually declined from 30.5 per cent to 28.6 per cent. A most significant structural shift in occupations was taking place during this decade. The growth in manufacturing employment was declining relative to the service occupations. If this trend continues, it constitutes a warning, in addition to technological displacement, against overly sanguine expectations regarding the absorption of the unemployed by manufacturing industries. It has been estimated³ on a man-year basis that in 1920 to produce 100 units, the proportions of employment in the basic and service industries were 70 and 30, respectively. By 1929 only 79 man-years were required and the proportions were 49 in the basic and 30 in the service industries.

II

While the importance of structural changes has probably been neglected as a cause of unemployment, business cycles remain not only the most dramatic but the gravest source of instability. The difference in stability among various industries is very great.

³ David Weintraub and Harold L. Posner "Unemployment and Increasing Productivity," *National Research Project on Reemployment Opportunities and Recent Changes in Industrial Techniques* (W.P.A., March, 1937).

Factory and building employment is more unstable than trade and service occupations. Within the factory group, employment in the metal trades is more unstable than in the food trades. Generally speaking, employment in the durable and producer goods industries is more unstable than employment in the non-durable and

TABLE I
MAXIMUM DECLINE IN ALL EMPLOYMENT, 1920-1922*
(Quarterly Average)

WEIGHT	INDUSTRY	MAXIMUM PER CENT DECLINE
1.7	Handicraft (negative decline, i.e., increase)	-0.7
8.8	Wholesale and Retail Trade	3.0
21.1	Service	3.0
8.8	Agriculture	4.0
1.7	Finance	7.0
12.3	Transportation	16.0
5.2	Building and Construction	19.0
36.9	Manufacturing	26.0
3.5	Mining	27.0
100.0	All Employment	14.0

* Source: W. I. King, *Employment, Hours, and Earnings in Prosperity and Depression*.

TABLE II
MAXIMUM DECLINE IN FACTORY EMPLOYMENT, 1920-1922*
(Quarterly Average)

WEIGHT	INDUSTRY	MAXIMUM PER CENT DECLINE
2.4	Paper and Printing	6
7.1	Textiles and Leather Products	15
3.6	Lumber and its Products	16
3.6	Food, Drink and Tobacco	16
2.4	Mineral Products	18
17.8	Metals and Metal Products	43
36.9	All Factory Employment	28

* Source: W. I. King, *Employment, Hours, and Earnings in Prosperity and Depression*.

consumer goods industries. Tables I-IV show the comparative loss of employment among the various industries.

The incidence of unemployment is concentrated not only on a basis of industrial groups and occupations but also on a basis of personal characteristics of workers.

In 1930 the percentage of unemployment was 75 per cent greater among men than among women. This may be due to two things: first, the fact that more women may not count themselves as un-

TABLE III
DECLINE IN ALL EMPLOYMENT, 1929-1932*
(Equivalent Full Time)

WEIGHT ^a	INDUSTRY	PER CENT DECLINE 1929-1932
19.6	Trade	19
5.2	Finance	20
16.5	Service	25
7.2	Agriculture	27
10.3	Transportation	32
34.0	Manufacturing	37
3.1	Mining	40
4.1	Construction	63
100.0 ^b	All Employment	28 ^c

* Source: U. S. Department of Commerce, *National Income in the United States, 1929-35*.

^a Weight indicates relative numbers employed in each group in 1929.

^b 100% equals 29,000,000 persons employed.

^c Average decline (including miscellaneous items not shown).

TABLE IV
DECLINE IN FACTORY EMPLOYMENT, 1929-1932*
(Equivalent Full Time)

WEIGHT ^a	INDUSTRY	PER CENT DECLINE
3.6	Paper, Printing and Publishing	20
3.6	Food and Tobacco	21
7.2	Textiles and Leather	27
1.8	Chemicals and Petroleum Refining	28
1.8	Miscellaneous and Rubber	45
10.8	Metals and Metal Products	48
5.2	Construction Materials and Furniture	54
34.0 ^b	All Factory Employment	35

* Source: U. S. Department of Commerce, *National Income in the United States, 1929-35*.

^a Weight indicates relative numbers employed in each group in 1929.

^b 34% equals 9,700,000 persons employed.

employed when they have lost jobs; and second, employment of women is probably concentrated in the more stable occupations.

In the case of loss of employment, there is a definite tendency

for skilled to displace unskilled workers. In the professional group, only half of those who had lost employment remained unemployed in 1930. Among the skilled, three-fourths losing employment remained unemployed. Among the unskilled, very few once displaced were re-employed.

Man's security of employment appears to be best when he is between 30 and 40 years of age. Loss of employment is higher both for those younger and for those older than the 30 to 40 year range. While the percentage of unemployment is highest in the ages under 30, unemployment of greatest duration comes to those over 40 years. Long-period unemployment falls most heavily on the old men.

In 1930 there was 30 per cent more unemployment among foreign-born whites than among native-born whites. About the same figure applies to the greater insecurity of Negroes and other races.

Unemployment studies in three Minnesota cities, Minneapolis, St. Paul, and Duluth, in 1932, show that:⁴ (1) unemployment is inversely related to length of time on last job; (2) physical defects likely to affect efficiency are more prevalent among unemployed than among employed workers; (3) those who were unemployed early in the depression make a poorer showing on ability and aptitude tests than do those who became unemployed late in the depression. The ranking on these tests of those who lost their jobs latest was similar to the ranking of the employed.

III

The problems of unemployment are commonly misapprehended, in part, by looking too exclusively at manufacturing employment, which accounted for only about one-third of the unemployment at the high of March, 1933. From March, 1933, to June, 1936, unemployment in manufacturing had declined one-half, whereas total unemployment had declined only one-third.

Workers eligible for relief are shown on a basis of occupation in Table V. Relief laborers who had been attached to manufacturing and allied industries constituted only 23 per cent of the total relief

⁴ This survey excluded casual workers or young persons "whose experience was so brief or varied as to preclude classification according to 'chief or model occupations'."

workers. Yet it is mainly from the improvement in manufacturing that popular opinion has expected a decline in relief.

Farm operators and laborers together with domestic and personal service comprised one-fourth of the total workers on relief. Farm operators and laborers amounted to the very considerable number of 746,507 in January, 1936. However, this represents a reduction, for in March, 1935, this group comprised 17 per cent of

TABLE V
OCCUPATIONS OF PERSONS ON RELIEF ROLLS ELIGIBLE FOR EMPLOYMENT,
JANUARY 15, 1936*

OCCUPATIONS	NUMBER OF ELIGIBLES	PER CENT OF TOTAL
Total	6,402,171	100.0
Building and Construction.....	794,872	12.4
Skilled.....	477,606	7.5
Semi-skilled.....	317,266	4.9
Manufacturing.....	1,257,887	19.7
Skilled.....	235,141	3.7
Semi-skilled.....	1,022,746	16.0
Unskilled Laborers (except Agriculture).....	960,855	15.0
Manufacturing and allied industries.....	196,112	3.1
Other than manufacturing and allied industries..	764,743	11.9
Domestic and Personal Service.....	618,318	9.7
Professional and Technical.....	120,961	1.9
Proprietors and Managers.....	93,304	1.5
Office Workers.....	240,043	3.7
Salesmen.....	183,900	2.9
Farm Operators and Laborers.....	745,366	11.6
Operators.....	309,511	4.8
Laborers.....	435,855	6.8
Inexperienced Persons (no occupations).....	841,757	13.1
Unknown Occupation.....	544,908	8.5

* Source: "Usual Occupations of Workers Eligible for Works Program Employment in the United States" (W. P. A., January 15, 1936).

total relief workers, whereas in January, 1936, it was only 12 per cent. The census in January would tend possibly to overstate the number of farmers on relief (except for the drought). It is interesting to observe that many agricultural states were over-represented, South Dakota being an extreme case with 275 on relief in March, 1935, for each 100 expected (on a basis of the 1930 census distribution).

Many families on relief contain more than one employable member. The family's principal wage earner or first priority shows training and earning power superior to other employables in the family. Thus the March, 1935, census for Michigan showed 23 per cent of first priorities were skilled as against 17 per cent of all employables. At the same time first priorities showed only

TABLE VI
FIRST PRIORITIES EXPRESSED AS A PERCENTAGE OF TOTAL EMPLOYABLES ON RELIEF
JANUARY 15, 1936*

OCCUPATIONS	PER CENT
Total.....	68.54
Building Construction.....	90.53
Skilled.....	91.96
Semi-skilled.....	88.38
Manufacturing.....	77.68
Skilled.....	88.89
Semi-skilled.....	75.10
Unskilled laborers (except Agricultural).....	83.67
Manufacturing and Allied Industries.....	84.71
Other than Manufacturing and Allied Industries.....	83.39
Domestic and Personal Services.....	59.31
Professional and Technical.....	80.37
Proprietors and Managers.....	88.23
Office workers.....	71.37
Salesmen.....	70.39
Farm Operators and laborers.....	79.48
Operators.....	90.33
Laborers.....	71.74
Inexperienced Persons (no occupation).....	19.27
Unknown occupation.....	51.91

* Source: "Usual Occupations of Workers Eligible for Works Program Employment in the United States" (W.P.A., January 15, 1936).

6 per cent inexperienced workers as against 20 per cent for all employables.

Table VI shows first priorities as a percentage of total priorities for the entire United States. Observe the very high figures of 90 per cent and 88 per cent for the skilled trades and proprietors and managers as against the low figure of 59 per cent and 19 per cent for domestic and personal service and inexperienced persons, respectively.

One item of special interest is shown by Mr. Hauser's comparison between the relief population and the gainfully employed in 1930.⁵ It is the sex ratios which are vitally affected by inclusion of "inexperienced persons" in the relief population. There are about 25 per cent more female workers with or without work experience than would be expected on a basis of the gainfully employed in 1930. Although experienced female workers on relief are *under-represented*, the inexperienced female workers are greatly *over-represented*. The explanation apparently is that a large number of housewives (47 per cent of all female workers on relief) without previous experience in gainful employment were forced on to the labor market by the depression.

While there are many exceptions, the relief population in general is overburdened by those unemployed who are on the fringe of unemployability. All those elements toward which the employer has the greatest resistance are over-represented in the relief population, that is, the older workers, the unskilled, the colored, the physically unfit.

These groups, which represent the fringe, were the first to lose their jobs and for the same reason are likely to be the last to be re-employed. Commenting on this point, Relief Administrator Hopkins has said: "Obviously the people (the unemployed) not on relief were stronger. They had fared best when the crash came. Either they had accumulated savings, or their relatives had accumulated savings, or they had not been fired until after the others . . . All through the period during which industry was getting under way again, these people who never had been on relief were getting the bulk of the new jobs. Moreover, a vast number of workers who never had been actually unemployed, but who had been reduced to part-time status, were recovering their full-time work and pay." (Hopkins' address to the U. S. Conference of Mayors, Nov. 17, 1936).

The size of the relief load is affected not merely by the level or volume of unemployment, but by the duration of unemployment as well. The unemployed on relief have been out of work longer than the unemployed not on relief. In Dayton, Ohio, in July, 1934, 39 per cent of the non-relief unemployed were in the short-

⁵ F.E.R.A., *Monthly Report*, April, 1936.

duration class, having been out of work six months or less, whereas only half that proportion, or 19 per cent, of the unemployed on relief were in the corresponding class.⁶ The same relationship is shown by the records of experienced workers applying to the U. S. Employment Service from July 1, 1935, through the following year.⁷ More than half of the total number of workers had been out of work six months or less, while more than two-thirds of those with relief status had been unemployed for a longer period.

TABLE VII
RELIEF CASES AS A PERCENTAGE OF POPULATION IN THREE RICH AND IN THREE POOR OHIO
RURAL COUNTIES*
(On a Basis of Per Capita Retail Sales)

COUNTIES	QUARTERLY AVERAGES ENDING				
	1934		1935		
	July	October	January	April	July
<i>Rich Counties</i>					
Wayne.....	1.39	1.04	1.56	1.76	1.19
Williams.....	2.98	2.27	2.90	2.89	2.09
Lake.....	2.04	1.97	2.82	3.21	2.43
<i>Poor Counties</i>					
Pike.....	4.21	4.79	5.32	6.10	5.88
Vinton.....	5.75	5.34	6.40	7.29	7.91
Jackson.....	6.94	7.07	6.86	6.88	7.73

* Source: Certain unpublished reports of W.P.A.

In the case of rural counties, there is often a discernable relationship between the poverty of the communities and the density of relief, as shown by Table VII.

Apparently diversification of industry helps to keep the relief load relatively low. Such at least is the more obvious explanation of the fact that, as in Table VIII, the largest cities often have lower relief loads than the second largest.

Standards of employability are difficult to define because they

⁶ "The Occupational Characteristics of the Relief and Non-Relief Populations in Dayton, Ohio," F.E.R.A., *Research Bulletin*, Series I, No. 3, p. 5.

⁷ *Monthly Labor Review*, December, 1936, p. 1527.

are changing rapidly. A worker who was employable in an agricultural era may not be in a manufacturing era. Technical advance and the mechanization of production require more exacting standards not only of education but of speed, stamina, and discipline.

We customarily think of the unemployables as those too old, or sick, or handicapped. But the age, health, and training requirements are changing. The increasing tempo of reshuffling jobs and shifting occupations places a premium on adaptability. The

TABLE VIII
PERCENTAGE OF POPULATION RECEIVING RELIEF IN OCTOBER, 1933*

CITY	PERCENTAGE
<i>Five Largest U. S. Cities</i>	
Los Angeles, California.....	9.2
New York, New York.....	9.9
Philadelphia, Pennsylvania.....	11.1
Detroit, Michigan.....	11.5
Chicago, Illinois.....	11.9
<i>Selected U. S. Cities</i>	
San Francisco, California.....	8.2
Saint Louis, Missouri.....	10.3
Baltimore, Maryland.....	12.8
Boston, Massachusetts.....	12.8
Newark, New Jersey.....	13.0
Cincinnati, Ohio.....	14.7
Cleveland, Ohio.....	14.9
Buffalo, New York.....	15.1
Birmingham, Alabama.....	16.9
Youngstown, Ohio.....	17.3
Pittsburgh, Pennsylvania.....	18.0

* Adapted from Illinois Emergency Relief Commission, *Second Annual Report* (1934), p. 63.

burden of these shifts is borne by the weakest, those who are left stranded by reason of bad health, age, inadequate training, and other handicaps. In an important sense, the very poverty of these groups is responsible for their inability to equip themselves better for the changing standards of employability.

The threat of early superannuation is especially concentrated in certain industries and localities. Michigan, for example, in January, 1935, had 35 per cent unemployment among those 60-65 and over, 25 per cent among those 55-59, as contrasted with 10 per

cent unemployed among those 30-34 years of age. Also, whereas the median duration of unemployment was 31 months for those 55-64 in Michigan's 14 largest cities, the median duration was only 11 months for those workers of 25-34 years. A part of these groups represents labor obsolescence and constitutes one of the most disturbing problems which society must now face.

There is a distressing lack of information on the subject, but it appears probable that the relative number of unemployables is increasing due to the greater strains of modern industry, to the breakdown of apprenticeship and training during the depression, and to the breakdown of health and morale induced by the extreme poverty of the depression.

IV

Summarizing, it appears that both long-term trends and the cyclical swings of change have operated to increase the instability of employment. There appear to be heavier demands than formerly upon workers for training, speed, and discipline. Also, the strain of shifting occupations and making new adjustments has increased. Technological and structural changes have altered the standards of employability, increasing the threat of early superannuation and occupational obsolescence. It appears a distinct possibility that the newer industrial discipline has increased the number of unemployables.

The relationship between unemployment and the need for relief is not uniform and immediate but depends upon the wealth of the community and its personal distribution. Ability to resist relief also depends upon training, skill, geographical mobility, and capacity to change occupation.

The brunt of unemployment tends to be borne by the weakest, those workers who are least able to cope with the requirements of modern life; they are the handicapped, the unskilled, the older workers, the inexperienced workers, and the workers in low-paid occupations. These groups are also relatively over-represented on the relief rolls. Since they are among the first to be fired, they are for the same reason among the last to be re-employed. Long periods of unemployment result in bad health, poor discipline and training, and immobility. There is much in the paradoxical statement that the curse of the poor is their poverty.

Mr. Weintraub and his associates have made a courageous effort to relate production and unemployment, with the following conclusion:

While the volume of production has from 1932 to 1935 actually been increasing faster than the labor supply, the increase has, in the light of the simultaneously rising productivity, not been rapid enough to absorb more than a fraction of the total unemployed man-power. Although the physical volume of production in 1935 was approximately 30 per cent higher than in 1932 and 14 per cent higher than in 1920, a rough calculation indicates that a return to the 1929 level of *employment* would, assuming the 1935 composition of the national output and the 1935 rate of productivity, require an output of goods and services equal to 110 per cent of the 1929 level, or more than 140 per cent of 1935. Using the same assumptions, a return to the 1929 level of *unemployment* by 1937 would require an output equal to 120 per cent of 1929, or nearly 55 per cent greater than 1935.⁸

The most optimistic voice is that of the National Industrial Conference Board which has concluded that a labor shortage threatens in 1940.⁹ The careful reader, however, will notice the limitations in the N.I.C.B.'s conclusions:

The assumptions here made are chosen *without any implication as to their probability*, but for the purpose of setting the *extreme limits* of possibility. . . . As setting an *extreme upper limit* to the possibility of employment it was assumed that the average *annual rates of increase* in the volume of production and trade in individual divisions of enterprise in the recovery *from the lows* of the depression to the 1936 level would *persist during the next four years*. It was also assumed that advances in the physical volume of production, or of activity, per man-hour would persist into the near future with the same average rate of gain as was evidenced in recent years. . . . It was assumed that the level of *weekly working hours* prevailing in all occupations in 1936 *would remain fixed*. (Italics mine).

That these assumptions are unrealistic is, one would suppose, generally agreed. For there has been a pronounced tendency toward increased hours, especially in the present recovery period. In the first four months of 1937 the average wage earner in manufacturing worked 6.6 hours longer per week than in 1934. But he is still seven hours per week below the 48.3 hours per week average

⁸ Weintraub and Posner, *op. cit.*, p. 40.

⁹ *National Industrial Conference Board Bulletin*, February 25, 1937.

of 1929. It is perhaps significant that the lengthening of the work-week has extended gradually over four years of recovery in contrast to the 1921 situation where the increase amounted to only 3.6 hours per week, all of which took place in one year. The interpretation may be this: following a long and severe depression, a substantial group of the unemployed are "unemployable" (willing to work but unable, at current standards) due to age, loss of skill, and breakdown of discipline, morale, and health. If recovery proceeds far enough, eventually employers do take on this group, attempting, of course, to hire the better workers first. A consequence of the fact that the hiring of additional workers will mean the hiring of inferior workers is the tendency to extend the length of the working week and thereby employ the existing labor force longer hours. Extensive employment leads to intensive employment; the margins are extended in both directions.

It is not suggested that this is the whole story of the length of the working week; but if it is one factor, there is a further consequence of some importance. As unemployment is reduced, we approach a level where the resistance to hiring the remaining unemployed increases, perhaps rather greatly, so that to increase employment as much in 1937-38 as in 1936-37 will require a far greater momentum of recovery and will lead to a further extension of the working week (unless greater resistance is offered by labor).

We have been thinking of depression for so long now that it is perhaps not generally appreciated that, although it has since preceded, the index of industrial production in May, 1937, reached the same level as in September, 1929, namely, 123 per cent of the 1923-25 average. There were, however, according to the recent and very excellent figures of the Bureau of Labor Statistics, more than 6 per cent (or 2+ millions) fewer persons employed in non-agricultural occupations at the later date. If the increase in the labor supply is put at 500,000 annually, there were 4,000,000 more seeking work in September, 1937, than in September, 1929. Thus in September, 1937, we must have more than 6,000,000 unemployed *in addition to the number of unemployed there were in September, 1929.* This is to say that two-fifths of the increase in unemployment are accounted for by changes in productivity and working hours; while three-fifths are accounted for by the growth of population, that is, the failure of production to keep pace with the growth in

labor supply. It should not, of course, be inferred that the 1937 level of production *would have been* achieved with the 1929 population, for there is no intention to suggest that either changes in productivity or labor supply are *causes* of the unemployment.

Future changes in productivity and in hours, in addition to relative shifts in employment between manufacturing and service occupations, make calculations extremely hazardous. But some rough notion can be obtained by observing that, on a basis of the May, 1937, relationships among the factors mentioned above, the index of industrial production must reach approximately 150 per cent of its 1923-25 level in order to reduce unemployment to the September, 1929, figure. This means that production must rise more than 20 per cent above the level of September, 1929.

These crude calculations yield results similar to Mr. Weintraub's,¹⁰ which were made after much more refined and detailed considerations. But, as has been indicated, there is every reason to expect a further lengthening of hours if production continues to increase. On the other hand, one is at least free to hope that service occupations will absorb more than a proportionate share of the unemployed.

When it is recalled that 6,750,000 workers were re-employed between March, 1933, and the high months of 1937, it is not difficult to believe that a very substantial group of those remaining unemployed are *less* employable—the skimmed milk—though they remain in the labor market and are not unemployable in any absolute sense. The longer persons are out of work, the worse their chances are for re-employment at their customary occupation or, in fact, at any job. Since recovery began, the ranks of the unemployed have come to hold larger and larger proportions of (a) unskilled workers, (b) inexperienced workers, and (c) workers over 50 years of age.

It appears clear that from the highs of 1937 a sustained and substantial increase in production over several more years is requisite if unemployment is to be reduced to 1929 significance. During this time, or if sufficient recovery momentum is lacking, it appears reasonable to expect that a very substantial group of unemployed will need assistance.

¹⁰ Weintraub and Posner, *op. cit.*

THE KENTUCKY ROCK ASPHALT COMPANY

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The questionable policies that characterized the operations of many investment banking houses of the twenties penetrated into the South and in some cases resulted in transactions decidedly inadvisable for the companies financed and in heavy losses to the purchasers of the securities of these companies. No Southern investment house was responsible for so much of this questionable financing as was Caldwell and Company, of Nashville, Tennessee. This firm became the largest of its type in the South, at one time controlling more than \$500,000,000 of assets. Although it was established to buy and sell Southern municipal bonds, and although it became primarily noted for its control of insurance companies and banks, this house was, nevertheless, very active in the financing of Southern industrial enterprises. In this latter branch of its business no transaction was so profitable or had so many features typical of the financial practices of the time as the promotion of the recapitalization of the Kentucky Rock Asphalt Company in 1926. As an illustration of prevailing financial practices and because of the political connections involved in its operations, a sketch of its history challenges attention.

I

The Kentucky Rock Asphalt Company was chartered in Kentucky in 1917 to quarry, crush, and market a bitulithic asphalt sold under the trade name of "Kyrock." The company owned or had mineral rights in about 40,000 acres of land in and around Edmondson County, in south central Kentucky.¹ With the growth of road construction in the South the company's operations became profitable, its bonded debt was almost completely retired, and from 1923 to 1926 it paid substantial dividends on its common stock.

¹ *Moody's Manual of Investments, Industrial Securities*, 1927, p. 377.

In 1925, Kentucky Rock Asphalt Company had enjoyed a very prosperous year: its production amounted to 201,200 tons, or more than twice the 91,000 tons that had been produced in 1922, while net sales reached a new high level of \$1,368,000.² The capital structure of the company at that time consisted of \$52,300 of first mortgage bonds, \$30,100 par value of preferred stock, and 13,046 shares of common stock with a par value of \$100.³ With continued good earnings, which amounted to more than \$20 per share in 1924 and 1925, the company no doubt would have soon retired the remainder of its bonds and probably paid off its preferred stock, thereby obtaining an ideal capital structure for a company subject to the severe fluctuations in earnings characteristic of this industry.

This good fortune, however, did not await the company, for during 1925 Caldwell and Company had industrial engineers make an extensive analysis of the company, which was favorably received. As a result, early in 1926 the investment banking house made a very attractive proposition to the holders of Kentucky Rock Asphalt Company common stock. It proposed to pay the common stockholders par in cash and, in addition, for each share held to give them one share of preferred stock in a new company to be organized to take over the properties of the old company.⁴

This proposal was accepted, and in May, 1926, the new Kentucky Rock Asphalt Company was issued a charter by the state of Delaware. The capital structure of the new company consisted of the following:

(1) \$1,500,000 of 6½ per cent first mortgage, sinking fund bonds, due in 1936, with detachable warrants entitling holders to purchase at any time prior to June 1, 1926, common stock at \$15 per share at the rate of 25 shares for each \$1,000 bond. Sinking fund payments on the bonds amounted to 33⅓ per cent of net earnings, with a minimum requirement of \$50,000 annually for the first two years, \$60,000 the following three years, and \$80,000 thereafter until the bonds were retired.

(2) \$200,000 of 6 per cent unsecured notes due in 1931.

² *Ibid.*

³ *Plan of Reorganization of Kentucky Rock Asphalt Company*, June 29, 1925, in the United States District Court for the Western District of Kentucky. A complete balance sheet of the company prior to its recapitalization by Caldwell and Company has not been available.

⁴ *Ibid.*

(3) 13,046 shares of \$7 cumulative preferred stock with a par value of \$100 per share.

(4) 200,000 authorized shares of no par common stock of which 105,000 shares were issued.

The mortgage bonds with the warrants attached were offered at par in June, 1926, by a syndicate headed by Caldwell and Company and composed of several less important houses. These bonds were all sold during the next few months and the proceeds used to pay the common stockholders of the old company \$100 per share and to retire the old bonds and preferred stock. Since the old security holders had to be paid before the new bonds were all sold, Kentucky Rock Asphalt Company advanced Caldwell and Company \$500,000 until the bonds were sold.⁵

The \$200,000 of 6 per cent notes were acquired by Caldwell and Company, for which payment was made by a credit to Kentucky Rock Asphalt Company of \$200,000 in Caldwell and Company's wholly owned Bank of Tennessee.⁶ This deposit, which was unsecured, was not withdrawn by the asphalt company at any time, and the issuance of these notes simply gave Caldwell and Company additional collateral of \$200,000 which it could hypothecate to obtain much needed funds for its other operations.

The entire preferred stock issue of the new company was given to the common stockholders of the old company as provided in the original agreement. The 105,000 shares of the new common issued were sold to Caldwell and Company for 10 cents per share, or a total price of \$10,500.⁷ Of this stock, approximately 30,000 shares were sold by Caldwell and Company at cost to the participants in the syndicate which sold the Kentucky Rock Asphalt bonds; while the remainder, or approximately 75 per cent, was retained by the originating house.⁸

While the common stock of the company was thus closely held by the syndicate, on December 1, 1926, a voting trust agreement was executed between Caldwell and Company and other holders of "Kentucky Rock Asphalt Company common stock as may sub-

⁵ *Audit Report of Caldwell and Company*, June 30, 1926.

⁶ *Report of the Receivers of Caldwell and Company*, Part I, p. 183.

⁷ *Plan of Reorganization of Kentucky Rock Asphalt Company*, June 29, 1935.

⁸ *Audit Report of Caldwell and Company*, June 30, 1927.

sequently become Parties" and Rogers Caldwell, president, and E. J. Heitzberg and J. D. Carter, executive vice presidents of Caldwell and Company. This agreement, after reciting the facts concerning the recapitalization of the company and stating that "stability and continuity in the control of the corporation for a reasonable time should be assured," provided for a voting trust to be established for a ten-year period, expiring shortly after the first mortgage bonds should be retired, with the three above named officers of Caldwell and Company as the sole voting trustees. The common stock was to be exchanged for voting trust certificates and the vote of the holders of 85 per cent of these certificates was necessary to terminate the agreement before its expiration.⁹ Since Caldwell and Company at that time owned approximately 75 per cent of the outstanding stock and since all of this was exchanged for voting trust certificates, the control of Kentucky Rock Asphalt Company by the three executive officers of Caldwell and Company was assured for a period of ten years, thereby transferring the management to investment bankers whose general policy was to make the interests of its controlled companies subservient to its own.¹⁰

The total assets of the asphalt company were carried at approximately \$6,000,000, on which capitalization the average earnings of the company before interest and income taxes of \$283,450 in 1924 and 1925 amounted to only 4.72 per cent. The new company was saddled with annual fixed interest charges on its bonds and notes of \$109,500, minimum sinking fund requirements of \$50,000, and contingent charges on its preferred stock of \$91,322, or total fixed and contingent charges of \$250,822. This amount was only \$33,000 less than average earnings in the two years prior to the recapitalization, a margin much too small to make the company's bonds an attractive investment. Since the old company had had fixed and contingent charges of no more than \$5,000,¹¹ the new company, with the same properties as the old, was assuming charges more than forty times as great, exclusive of sinking fund requirements in both instances.

⁹ From the original Voting Trust Agreement.

¹⁰ See John B. McFerrin, "Caldwell and Company: A Study in Southern Investment Banking," unpublished doctoral thesis, University of North Carolina, 1937.

¹¹ Actual rates paid on the old bonds and preferred have not been available, the above figures having been obtained by assuming a 6½ per cent bond and a \$7 preferred stock.

II

The four years following the recapitalization of the Kentucky Rock Asphalt Company under the aegis of Caldwell and Company did not, however, reveal the weaknesses inherent in the heavy fixed and contingent charges levied on the company. Earnings before interest and income taxes, which had amounted to \$280,500 in 1924 and \$286,400 in 1925, before the recapitalization of the company, amounted after the recapitalization, with no apparent changes in depreciation and depletion reserve policies, to \$417,250 in 1926, \$446,500 in 1927, \$463,000 in 1928, \$383,000 in 1929, and \$417,000 in 1930.¹² Interest was earned more than five times in each of these years and earnings per share of common were as follows:

1926	\$1.54
1927	1.88
1928	2.15
1929	1.50
1930	1.70

At least a part of the prosperity of the company was due to the political power of Rogers Caldwell and Colonel Luke Lea in the state of Tennessee. Lea, through his powerful political machine and his control of the *Nashville Tennessean* and later of other leading newspapers in Tennessee, had been an important force in state Democratic politics since 1909. Lea and Caldwell became associated first through some real estate transactions of minor importance in Nashville but soon extended their joint ventures to the purchase of the control of the Union Planters National Bank of Memphis and the Holston-Union National Bank of Knoxville as well as of the *Memphis Commercial Appeal* and the *Knoxville Journal*. These business transactions resulted in the close alliance of the two men politically.

In 1922, Lea's candidate for governor of Tennessee, Austin Peay, was elected, and although Peay was in no sense dominated by Lea, the latter's political influence was naturally increased when his candidate became governor and was maintained when Peay was reelected in 1924 and 1926. Among the more important accom-

¹² These and the immediately following data are from *Moody's Manual of Investments, Industrial Securities*.

plishments of Peay's governorship was the impetus given to an extensive highway system in the state. In this program Peay had insisted until 1925 upon a pay-as-you-go program financed by a gasoline tax and bridge tolls. In 1924, however, there was much agitation in the state for a \$75,000,000 bond issue for highway purposes and Peay retreated from his former position by approving the issuance of short term notes to supplement highway revenue, the Tennessee legislature in 1925 authorizing the issuance of \$5,000,000 of five year notes, and two years later, an additional \$10,000,000, thus enabling the highway program to be pushed forward more rapidly.¹³

It was while Tennessee was engaged in this extensive highway building program and Austin Peay was governor that Rogers Caldwell negotiated for the purchase of Kentucky Rock Asphalt Company, believing no doubt that his relations with Lea would enable his new company to sell a substantial amount of its product to the state on an attractive basis. The first known attempt to do this occurred in September, 1927, when Lea approached C. Neil Bass, the Tennessee Commissioner of Highways and Public Works, with the request that he specify without competition the use of Kyrock in the building of certain roads in the state. Bass was not in sympathy with such a proposal, however, and refused.¹⁴

The month after this incident took place, in October, 1927, Governor Peay died and was succeeded by Henry H. Horton, Speaker of the State Senate. The effect of the change in governors is seen from the fact that when, in January, 1928, a representative of the Kentucky Rock Asphalt Company was ordered from the office of the State Highway Department when he informed Bass that his company expected Kyrock to be specified without competition for a certain federal aid road, Horton, on learning of the incident, gave Bass the choice of demotion or resignation. Bass chose the latter and was succeeded by Harry S. Berry, a close personal friend of Luke Lea.¹⁵ Berry was much more favorable to-

¹³ *Tennessee Taxation and Public Finance*, Report of the State Tax Committee, November 29, 1930, pp. 26, 27.

¹⁴ "Second Report of the Special Legislative Committee," *House Journal of the 67th General Assembly of the State of Tennessee*, 1931, p. 660.

¹⁵ *Ibid.*, pp. 661, 662.

ward Kyrock, he being accused in 1931 by a special legislative investigating committee of having specified the use of Kyrock between February 13, 1928, when he took office, and July 20, 1928, at an excessive cost to the state of \$231,750.¹⁶

While Kyrock was being materially favored by the Tennessee Commissioner of Highways and Public Works, Tennessee's gubernatorial campaign of 1928 was in progress. In this campaign the major issue raised by Horton's opponent, Hill McAllister, was the support of Horton by Lea and Caldwell. The use of Kyrock on state highways was severely criticized by the opposition and Rogers Caldwell was soon given the sobriquet of "Kid Kyrock." In spite of the very severe opposition, Horton was reelected and Kyrock continued to be purchased in substantial volumes for Tennessee roads.

III

With the company thus being favored and its earnings continuing good, it had of course paid bond interest promptly, made payments to the sinking fund with which a substantial amount of its mortgage bonds was bought and retired annually, and paid regular dividends on its preferred stock. On January 1, 1928, an initial dividend on the common stock of 25 cents per share was paid.¹⁷ These developments coupled with aggressive sales promotion by Caldwell and Company led to a substantial demand for the common stock of the company, the bulk of which Caldwell and Company still held. During its previous fiscal year, 1927-1928, Caldwell and Company had sold 11,660 shares for \$58,372, or at an average price of \$4.90 per share, yielding a total profit of \$57,206, or \$4.80 per share¹⁸ since the stock was originally purchased for 10 cents per share.

The payment of the regular quarterly dividend on the company's common stock of 25 cents per share during 1928, the increase of this dividend to 40 cents per share on April 1, 1929, and the payment of a 5 per cent stock dividend on the same date further stimulated the demand for this stock. As a result, during the fiscal

¹⁶ Article I, Section 1, Articles of Impeachment against Governor Henry H. Horton, *House Journal of the 67th General Assembly of the State of Tennessee*, 1931, p. 834.

¹⁷ *Moody's Manual of Investments, Industrial Securities*, 1929, p. 1686.

¹⁸ *Audit Report of Caldwell and Company*, June 30, 1928.

year ending June 30, 1929, Caldwell and Company sold 42,567 shares for \$1,572,306, which yielded the enormous profit of \$1,567,049, or an average of \$36.80 per share.¹⁹ Thus in the two fiscal years, 1927-1928 and 1928-1929, the banking house made a total profit of \$1,624,255 on Kentucky Rock Asphalt common stock, which amounted to more than the total net earnings of the asphalt company, after interest and taxes, for the five-year period, 1926-1930, and to more than 25 per cent of the company's total assets. The frequently cited underwriting profit of \$62,500,000 on the promotion of United States Steel Corporation amounted to less than 5 per cent of its original capitalization of \$1,400,000,000.

After these profitable sales, Caldwell and Company still held 20,500 shares of Kentucky Rock Asphalt common stock, which were estimated to have a market value of \$694,855.²⁰ While a small part of this was sold subsequent to June 30, 1929, by far the bulk of the profits had been obtained prior to that time. The remaining stock, however, was hypothecated on loans by Caldwell and Company.

IV

Although the collapse of the security markets in 1929 halted the sale of Kentucky Rock Asphalt common stock, the asphalt company did not feel the result of the depression until the latter part of 1930, its earnings during that year being greater than in 1929, and its quarterly common dividend of 40 cents per share was paid through October, 1930. In the following month, however, the Bank of Tennessee failed with the complete loss of the company's \$200,000 deposit. There soon followed the collapse of Caldwell and Company and in turn the Caldwell affiliated National Bank of Kentucky of Louisville, in which bank the asphalt company had a deposit of \$80,000.²¹ Although a part of this latter deposit was recovered in a relatively short time, the failure of these two banks together with the failure of Caldwell and Company, to which the asphalt company would normally have looked in time of need, dealt a severe blow to the company's financial condition.

¹⁹ *Ibid.*, June 30, 1929.

²⁰ *Ibid.*

²¹ E. J. Heitzeberg, Memorandum to Receivers of Caldwell and Company concerning Kentucky Rock Asphalt Company. Not dated.

The first apparent effect of this blow was the passing of common dividends after October, 1930. During 1931, with the intensifying of the depression and the removal of its "protected" market in Tennessee because of the politically as well as financially weakened Rogers Caldwell, the company's production, which had been 185,000 tons in 1930 dropped to 82,100 tons, and instead of substantial earnings per share of common stock as had been the case during the previous five years, a deficit of \$1.08 per share was suffered, with no earnings to apply toward preferred dividends. Preferred dividends were regularly paid out of surplus, however, during the year, but were passed after December, 1931.²²

The \$200,000 of 6 per cent notes, for which the company had received only a \$200,000 deposit in the closed Bank of Tennessee, which paid no liquidating dividends on its unsecured deposits, matured in 1931. These notes had never been offered to the public for sale but were held by the creditors of Caldwell and Company to whom they had been hypothecated and who had foreclosed on their collateral when payments had not been made after the banking house failed. The asphalt company claimed that it was not liable for these notes since it had received no benefit from their issuance and would recover nothing on their deposit in the Bank of Tennessee. However the company did buy in at below par a \$43,000 block of these notes and retired them, leaving \$157,000 outstanding and overdue.²³

The result of the company's operations became steadily worse, a deficit of \$1.29 per share in 1932 increasing to \$2.17 in 1933 and to \$3.64 in 1934. Interest on the company's first mortgage bonds, the par amount of which had been reduced to \$613,000, was defaulted on June 1, 1934 and a year later unpaid interest amounted to \$59,767.50, sinking fund payments in arrears to \$120,000, and cumulative preferred dividends unpaid to \$319,527.²⁴

²² *Moody's Manual of Investments, Industrial Securities*, 1935, p. 933.

²³ The \$43,000 block of notes retired was probably bought from the town of Owensboro, Kentucky, to which a block of this size was pledged as part of the collateral securing a deposit with Caldwell and Company. The town received \$10,320 for its block of notes or less than 25 cents on-the-dollar. Kentucky Rock Asphalt Company, no doubt, would have been willing to retire the whole issue on such a basis since its position that these notes did not constitute a claim against it was of doubtful validity. See *Report of Receivers of Caldwell and Company*, Part I, p. 183.

²⁴ *Plan of Reorganization of Kentucky Rock Asphalt Company*, June 29, 1935.

Following the interest default on the company's bonds, a bondholders' protective committee was formed, and shortly thereafter a movement to reorganize the company under Section 77B of the Bankruptcy Act was begun.²⁵ The drastic reorganization that followed reflected the inherently weak condition of the company resulting from the excessive burden of fixed charges with which it had been loaded at the time of its recapitalization by Caldwell and Company.

In place of the \$613,000 of 6½ per cent first mortgage bonds there was issued a like amount of new 6½ per cent mortgage bonds due in 1945 with the provision that interest in excess of 3¼ per cent per annum should be paid only if earned, the interest to be considered earned only after all expenses had been paid and \$50,000 added to working capital annually until \$250,000 had been thus accumulated. All unpaid interest was to be cumulative. The old bondholders were given the same amount of new bonds and two shares of the new \$1 par value common stock for every \$100 par value of bonds.

In place of the 13,046 shares of \$7 cumulative preferred with par value of \$100, there was issued the same number of shares of 4 per cent Class "A" stock, with a par value of \$25, participating with the common up to 6 per cent. This stock was exchanged share for share for the old preferred, the holder of each share of preferred giving up a security with an annual contingent income of \$7 for one with an annual contingent income of between \$1 and \$1.50. It was also provided that the holders of the \$157,000 of 6 per cent notes outstanding should be paid in Class "A" stock when their claims are settled.

Finally, the old common stockholders were given one share of new common for every two shares of the old. Since the amount of new common given to the old stockholders was equal to that given the bondholders, the nominal control of the company was equally divided between these two groups of security holders. While this reorganization materially reduced the fixed and contingent charges carried by the company, it did not reduce them to anything approaching these charges previous to the recapitalization of the company by Caldwell and Company.

²⁵ *Ibid.*

The experience of Kentucky Rock Asphalt Company illustrates the widely recognized danger of saddling a small company whose earnings are subject to marked fluctuations with extremely heavy fixed charges, and emphasizes the danger in the recapitalization of profitable going concerns by investment bankers whose regard for the long-time future of the company is secondary to the immediate profits expected from the sale of the company's securities to the investing public. Certainly no group interested in Kentucky Rock Asphalt Company was benefitted either relatively or absolutely to the extent that Caldwell and Company was with its profit of more than \$1,600,000.

It is very probably true that in most cases the losses suffered through the operations of the investment-banking racketeers of the twenties were concentrated on a relatively small group that bought the stocks and bonds that were offered. Even though this group sustaining losses was relatively small, such practices by investment houses have and should be soundly condemned. In this particular case, however, the political power of the investment banker enabled him to inflict losses not only on the purchasers of the securities of this heavily over-capitalized company but also upon the taxpayers of Tennessee through the sale of his company's product to the state without competition with other similar products. To the many examples of losses to taxpayers that have been caused by financial and commercial interests which have great political power and are ruthless in the use of it should be added that due to the transactions carried on with the state of Tennessee by Caldwell and Company for its subsidiary, Kentucky Rock Asphalt Company.

SOUTHERN TEXTILE MILLS REVISITED

FRANK TRAVER DE VYVER

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During several months of 1928-29 living conditions in 66 representative Southern cotton mill villages were studied to test the claim that Southern mills provide compensation in kind more than offsetting admitted wage differentials. Welfare and community work in these villages was investigated and questions were asked concerning union activities.¹ Fifty-six of these mills have recently been revisited to discover the effects of depression, government sponsorship of labor unions, and social legislation upon industrial relations.

The investigator of Southern conditions too often finds only what he seeks and generalizes from these special cases. A revisit after a ten-year absence can only strengthen the view expressed in the earlier study that generalizations upon Southern cotton mills are fraught with the danger of being unscientific. There are, however, some unmistakable trends.

I

One noticeable difference is the attitude of management toward labor unions. During the earlier field trip, made before the Gastonia and the Danville strikes and before the so-called stretch-out system had become wide-spread, no mill owner admitted the presence of union activity in his village. With the exception of the Danville mill which had a company union, all agreed that their approach to industrial relations was what several of them called "the open-door policy"; that is, although the resident manager welcomed discontented employees to his office for conferences, collective bargaining was unknown. All of these mills ex-

¹ The results of this field work were summarized in Chapter VIII, *Labor in the Industrial South*, by Abraham Berglund, G. T. Starnes, and Frank T. de Vyver, published in 1930 by the Institute for Research in the Social Sciences at the University of Virginia.

perienced some union activity during the general textile strike of 1934. At present many of them claim that their workers are not openly organized, while others have recognized the union as the bargaining agency and two or three have signed collective bargaining agreements.² Whatever the situation, Southern mill men in the last ten years have faced a new problem in industrial relations with which many of them were not trained to deal. Some of them, rugged individualists of the old school, have fought bitterly and openly. In such cases the militia has been called, violence has occurred, and many a year will be required to sooth the rancor thus engendered. Others, individualists to be sure but paternalistic as well, have gradually conceded their workers' demands though with a feeling of deep hurt at the ingratitude of their "folks". At one model North Carolina village, worry over a strike among part of his workers is said to have caused the founder to take to his bed, an ill man. An agent of an Alabama mill told of his chagrin when a man whom he had personally aided during the depression kept him from his office with a gun.

An interesting study might be made of the relation between company welfare plans and labor disputes. Several mill executives commented upon what seemed to them a fact that mills having the best facilities for their workers experienced the most severe labor troubles. To be sure, some of the most paternalistic mills have had no strikes, but many paternal employers are asking why their workers joined the union while the employees of neighboring mills, supplying few or no activities, forcibly expelled union organizers.

A third group of mill men have apparently adapted themselves to the new union movement. These are often the younger men who have been placed in charge because of their ability to deal as impersonally with the labor problem as with the purchase of cotton, and who are not imbued with the feeling that their company should make men as well as goods. Many of them report

² Exact organization figures for the industry as a whole are not available because the organizing campaign is still progressing. In December, 1937, however, the Textile Workers' Organizing Committee had about 30 contracts in the South including those in cotton, knit goods, wool, and rayon mills. Substantial membership is claimed in many other places but no pressure for contracts can be made until business activity again rises. Of the 56 mills visited, only seven definitely claimed that there was no union activity.

perfectly satisfactory agreements with their employees. One, wiser perhaps than the others, has instituted an adequate system for filing written complaints and planned, he said, to provide a "Hyde Park" for the village where anyone wishing to talk might have his say.

Time did not permit an adequate study of the workers' complaints, but a cursory glance at some typical letters indicated that most of the grievances could be easily solved if openly discussed, but might create ill will if allowed to fester in the mind of the complainant. One carder was suspended indefinitely by the shop committee upon complaint by the room committee that he was unfair to the organization and had "cursed our overseer, Mr. . . . , and called him out of his name." A second hand, a subforeman in another room, was suspended when the committee found justice in a worker's complaint that inefficiency was prevalent because the second hand spent too much time supervising one girl. Similar incidents are on file. None would have caused a strike, but each would have made at least one dissatisfied worker.

Whatever their attitude toward organization, Southern mill men are managing labor with more finesse than formerly. The possibilities of organization as much as organization itself are responsible for this situation. An Alabama executive reported that though adjustments were difficult, his overseers were gradually learning under his constant tutoring that they must not be arbitrary in their dealings with the workers. Any discharge, transfer, or unusual order must be accompanied with an explanation, and if that proved unsatisfactory, the matter was to be referred to the general manager himself. Some executives may have used this method of industrial relations in 1929, but in most of the mills visited overseers hired and discharged with little supervision from the main office and with few explanations to any worker.

This is not the place to discuss the permanency of the recent textile union movement. One authority, writing in 1931, observed that factors operating in the South seriously check such a movement and that previous unions have invariably resulted from spontaneous outburst among dissatisfied workers.⁸ In that re-

⁸ G. T. Schwenning, "Prospects of Southern Textile Unionism," *The Journal of Political Economy*, December, 1931, pp. 783-810.

spect the present situation is different, because increases in pay and reductions in hours have reduced dissatisfaction on those two points to a minimum. Yet, stimulated by the Wagner Act, organization among the textile workers continues. Furthermore, many mill men apparently believe that the T.W.O.C. will be more successful than the United Textile Workers have been.

II

The mill villages do not seem so drab as they did ten years ago. To be sure, the revisiting was done after post-depression painting and repairing had been finished. Furthermore, in communities in which a real effort had been made to improve superficial appearances by landscape gardening, the ten year's growth of trees and shrubs aided materially. "Southern mill hills" have not all become garden spots. Those sore spots visited in 1929 have not improved with age, but at least two young executives have made the painting, repairing and beautifying of the villages "number one" on their agendas for improving employer-employee relationships.

Depression and recovery have had little effect upon village house rents. With five exceptions, among the mills revisited rents have remained at their 1929 level, that is 25 cents per room per week. Even at that time some managements had adopted a schedule graduated according to type and location, while a few others have done likewise during the past years.

An important change, however, has been the arrangements for supplying electricity.⁴ In 1929 numerous household lights burning all night marked the sight of a mill village, where electricity was included free. For various reasons the trend apparently is to make some charge for lights, rising from low-cost minimums by increases according to the amounts used to rates practically identical with those charged in neighboring communities. Some managers blamed the increased use of electrical appliances for the change in procedure; others said that general-cost studies, which have included checks on electricity, have revealed not only the variation in consumption among workers but also the enormity of the previous donation. Some few mills are also installing

⁴ Of the mills revisited, 15 of the largest had made some change.

water meters, but by and large free water is still considered a worthy contribution to village cleanliness and health.

Another problem faced at least temporarily by many mills has arisen because extra shifts have accompanied hour reductions and because in some instances more than one worker from each company house is no longer required. Many mills whose villages are geared to two shifts, now operate three; others capable of housing workers for one shift are operating two. The extra workers come from surrounding rural areas, often from points eight to ten miles distant. Wage adjustments are not made in consideration of distance travelled or of cheap rents offered to workers living in the village. If this extra shift continues to live outside the village, the situation is manifestly unfair. One young executive of a South Carolina mill having considered the problem, feels that even if accompanied by wage increases, rents should be raised at least to a cost level. Strangely enough, the manager hesitated to apply the plan because of fear that the union, misunderstanding the move as a method of wage reduction, would be prompted to action. Another mill, the most modern in the South, rents its houses for more than prevailing rates with the result that many workers live elsewhere. Still other mills, particularly those located in cities, have sold their villages to local capitalists who will charge uniformly higher rents.

Aid to churches has suffered least during the depression. In 1928-29 mills customarily contributed to each of the established churches in the village. In general such contributions are still made. One South Carolina mill, having included an additional church in its benevolence, was promised value received by the pastor. "You may have noticed that none of our members took part in the general strike," he said. "We don't go for that sort of thing." To be sure, the mill gave because many of the workers were members of the new church and because the other churches were receiving aid. Moreover, the minister's promise of future favors was unsolicited and came after the first donation was made.

Exceptions were found even in the matter of church aid. One mill, having directed church goes to the nearby country churches of the more evangelistic type, made a community building out of a community church that had failed to attract members. In the

depth of the depression another superintendent, disgusted by lack of cooperation from nearby city churches, built a community church with a series of what might be called forced donations from various salesmen and others visiting the plant. Another had considerable trouble maintaining a community church because of denominational squabbles.

The mill church presents a vital problem to the student of social and industrial questions as well as to religious leaders. Poor churches and poorly prepared preachers supported by benevolent mills apparently are the general rule, though no attempt was made to study the institution in detail. One notable tendency in several scattered places, however, has been the withdrawal of mill support as such. Mill officials continue to make personal contributions, but at least the company's donations do not hang over the preacher's head to guide his tongue.

Subsidized sports are an even more important part of the welfare work than formerly. Only in one community visited had the management decided that the "joints" in town satisfied the new leisure of their workers. In most villages the reduction from ten hours to eight has brought an increased interest in sports. Teams formed for each shift are encouraged by the company either with actual financial aid or by the grant of the "drink" concession in the mill. The annual textile basketball tournament has apparently lost none of its popularity; and soft ball teams vie with those from neighboring mills or with other intramural teams.

The direction of athletics as well as other welfare activities has changed little during the past ten years. With few exceptions mills employing welfare workers before the depression still maintain them, while those which formerly left such matters to volunteers or to the churches still do so.

Mill assistance to the schools has been reduced in numerous cases. Night schools for adults, rather common in 1928, are rare today, and nursery schools have been curtailed since mothers have been working shorter hours. Kindergartens, though still supported by some mills, are not so popular as during previous prosperity. Finally mill support for an extra month of school or for extra teachers has often been discontinued. One Georgia mill operator, however, has recently aided education in the mill village

by insisting that no young person, whatever his age, could be hired without finishing the ninth grade. He had been appalled, he said, by the large number entering school and the small number graduating. An Alabama mill reported that its support to the schools had only been withdrawn after its workers had organized a school district and levied a 3 mill school tax. The new tax approximated previous donations.

Community club work has changed very little. In 1929 this was often supervised by the churches and the schools, though a director of community activities or a "Y" secretary was not unknown. Apparently as much work is accomplished now as previously and through approximately the same agencies.

Health work, unfortunately, has been allowed to lapse in some communities. One South Carolina organization, previously maintaining a model health unit, has dispensed with it entirely. Others maintain one nurse instead of two, have curtailed or eliminated clinics, or have decided to treat only mill accident cases. On the other hand, one official has recently expanded the health service to include annual physical examinations and Wassermann tests for all employees. Another enterprising management has been formulating plans for a contributory health insurance system to cover the workers and their families. At least two mills have recently provided contributory accident policies in their villages.

Miscellaneous welfare activities such as group insurance, small loans, non-contractual pensions, and mutual benefit associations are practically the same as in 1929, except that group insurance has in most instances become contributory.

III

In conclusion, certain trends can be noticed in Southern mill welfare work. One of these is the elimination of what might be called unessential yet expensive phases of the welfare program. Considerable welfare work, however, continues in Southern mill villages though expenditures have been cut. When country, state, or federal government has provided the service, management has willingly relinquished the function. Kindergartens, night schools, health services, bonuses, and Christmas presents have decreased. A second trend is the gradual but none the less distinct

movement toward leaving welfare or community work to mill officials as individuals and to the people themselves. Here is a community building erected from the profits of various concessions; here is a village in whose varied program the mill itself takes no part though that community was once a good example of benevolent paternalism; and here is a third mill whose workers pay something for every service, however trivial the service, or however small the payment in relation to the actual cost.

Paternalism is yet by no means a decadent institution among Southern mills. It is, however, declining in vigor and there are indications that it is gradually disappearing in the same manner as seventy-five years ago in New England.

BOOK REVIEWS

Social and Cultural Dynamics. By Pitirim A. Sorokin. Cincinnati: American Book Company, 1937. 3 vols. Pp. xxi, 745, xvii, 727, xvii, 636. \$15.

The science of economics, in the course of the nineteenth century, came to be concerned in an ever increasing degree with the process of equilibration. Even the longer run views of Malthus and his followers ran in terms of equilibration. In the present century concern with the process of equilibration to the exclusion of almost everything else has permeated both the textbooks (usually products of myopic minds) and the works intended for students of "advanced theory." Many of the treatises on, and analyses of, "business cycles" have run solely in terms of undulation rather than (in part) in terms of propagation. Not that one ought carp at such an approach, given the current assumption that the function of university social "scientists" is the enshrining of the traditional and the dissemination of argument in support of Fabianism raised to the fiftieth power.

If it be granted, however, that the function of social scientists in general and of economists in particular be that of explaining and making intelligible the world in which we live, it is essential that they concern themselves with "change" and the laws of change, with that which is constantly altering the factors usually impounded in *ceteris paribus*. It is to this problem that Marx and Veblen directed themselves, and to the willful neglect of this problem by orthodox practitioners of economics that one may attribute the strictures of these two philosophers upon orthodox analysis. It is to this problem that the three volumes under review, the product of the chairman of the Harvard sociology department and a number of his aides, are directed. A fourth and final volume by Professor Sorokin, devoted to a resume and critical analysis of all theories of social change and to the explicit formulation of the theory implicit in these three volumes, will have appeared by the time this review is printed.

Almost immediately upon its appearance Professor Sorokin's monumental treatise was greeted by that barrage of adjectives peculiar to hack reviewers and literary procurers; it was attacked by the Marxians; it was even chaffed in the *New Yorker*. None of these appraisals is warranted. For while the treatise is marred in many places by the use of the literary style of a modern St. Paul conducting a Catholic parish mission (revival), it is laden with a wealth of tabular and statistical materials and an abundance of annotation that make it worth anyone's careful reading. It is anathema to the Marxians for the reason among others that at times it virtually makes the reality underlying change permanent and changeless, even though long periods of time are necessary to transmute what seems to be change into the changeless. In theory at least it should be anathema to all who subscribe to Alfred Marshall's dictum that *natura non facit saltum*.

The author's concern is "the change and fluctuation of cultures." Human culture in the broadest sense is "the sum total of everything which is created or modified by the conscious or unconscious activity of two or more individuals interacting with one another or conditioning one another's behavior." This definition is dismissed as useless, however, as are the definitions of those who treat as a unified culture elements merely spatially adjacent (e.g., mechanical invention and universal suffrage), or elements associated with a common third factor (e.g., vodka and greatcoats with snow). Not even "causal" or "functional" interrelationships among cultural elements (e.g., New York Stock Exchange and finance capitalism) suffice by themselves to transmute individual fragments into an integrated cultural whole. This whole does not exist until the elements or fragments that may make up a culture are held together and made comprehensible, by a "central meaning, idea, or mental bias" that "permeates all the components, gives sense and significance to each of them, and in this way makes cosmos of a chaos of unintegrated fragments."

Given this conception of culture, four main types of processes of change are possible. Change may continue in one direction either at a constant rate or at a rising (or falling but positive) rate. Such seems to have been the conception of the eighteenth century exponents of the doctrine of progress. Again, the achieve-

ment of certain conditions may bring change to a halt (e.g., the establishment of a certain set of class relations in society). Or the process of change may be regularly cyclical and repetitive. Finally, the process may continue in a given direction until it produces a set of results that compel a change in direction not necessarily an absolute reversal. Expressed in cultural terms, three possibilities face men: (a) the existing culture may remain virtually unchanged; (b) existing cultures may give birth to new and unique cultures; (c) the processes of change may but shift men from one to another of a limited number of cultures. Short run fluctuations may mark any longer run cultural process.

Professor Sorokin subscribes to (c), for he indicates that while many possible systems of integrated culture are conceivable, the actual systems have been predominantly *Sensate*, predominantly *Ideational*, or a balanced synthesis of these two types (i.e., Idealistic), and the processes of change have carried men back and forth between extremes approaching the purely *Sensate* or the purely *Ideational*. A reviewer can but suggest the main characteristics of these cultural types—characteristics described in great (if not always intelligible) detail. A *Sensate* culture differs from an *Ideational* in that the *Sensate* conceives reality to be that perceivable by the senses, not something hidden behind the "material-veil"; stresses carnal rather than spiritual (e.g., salvation of soul) needs; emphasizes adjusting the environment to the individual rather than the individual to the environment. The author, who follows Aristotle and Thomas Aquinas in many respects, is extremely partial to the balanced *Idealistic* type.

The author traces the shift in ancient times from the *Ideational* through the *Idealistic* to the *Sensate* which prevailed in the closing centuries of Graeco-Roman domination; only to give way to the *Ideational* which, having become transmuted into the *Idealistic*, began to give way about the fourteenth century to the *Sensate*, now become overripe. In support of this thesis the author presents elaborate statistical and historical accounts of fluctuations in art forms, systems of knowledge and truth, ethical values, social relationships (i.e., family, state, etc.), and relationships of class to class and people to people. (In accordance with his definition of an integrated culture the author is compelled to show that only certain forms, systems, and relationships can coexist for long.)

The implications of the author's analysis are two-fold so far as economists are concerned. First, a great deal of the methodological procedure of the economist is rejected. The notion of equilibration seems definitely to be ruled out. The universal applicability of correlation analysis either at a given time or through time is denied. The conception of a high degree of causal interrelatedness among the elements composing a culture—a conception implicit in the notion of "cultural lag" or in such theories of change as those of Marx and Veblen—is described as invalid in view of Sorokin's insistence that it is logico-meaningfulness that cements the isolated cultural fragments together. And so on.

The second implication is best suggested by quotation.

The contemporary crisis . . . is infinitely deeper than it is generally understood to be. It is the crisis of our whole over-Sensate culture and society. The Western world is passing through one of its greatest transformations . . . Western society and culture seem to have entered the stage of transition from an overripe Sensate to a coming Ideational form. [Neither capitalism, nor communism, nor fascism, each of which is materialistic, will prevail.] The transitory period already is and will continue to be painful, cruel, and bloody, having nothing in common with the popular after-dinner cloud-cuckoo lands of milk rivers with ice-cream shores, of guns turned into golf clubs, and so on. Beyond this grim transitory period there loom not the decline and end of Western culture, but the magnificent peaks of a new Ideational society.

Whether or not the author's conclusions are valid must be decided by the reader after careful perusal of the treatise. His criticisms of most of the contemporary cultural anthropologists, of the uncritical employers of correlation analysis, of the exponents of the cultural lag theory, and so on, seem to be largely valid. The statistical and historical accounts may be correct (a literary colleague rejects the treatment of literature) so far as they go. It is to be doubted, however, if the vast bulk of any population is ever anything but *Sensate*. Were the statistical nets weighted with the indices of the common man, the amplitude of fluctuation would be much less. Whether the basic explanation of motive forces in human society is valid turns in large part on the analysis to be presented in Volume IV.

Duke University

JOSEPH J. SPENGLER

America's Experience as a Creditor Nation. By John T. Madden, et al. New York: Prentice-Hall, 1937. Pp. xvii, 333. \$2.60.

The authors wrote this book with a view to dispelling popular misconceptions, both economic and political, concerning American foreign lending in recent years, its errors and achievements, and its disadvantages and advantages. The book fully accomplishes this purpose.

After discussing the theory of capital export in general, a discussion that is enlivened by references to the experience of older creditor nations, the authors outline the international economic position of the United States in the post-war world. Following an analysis of the effects of American lending on the country, an account is given of the financial results of such transactions, including a discussion of the transfer problem. Then there appears a statistical analysis of the international credit status of the United States late in 1935. Next there follows a discussion of the role of American bankers in the promotion of American capital investment abroad, particularly in the foreign security market, and of the role and attitude of the government with regard to such investment. The volume ends with a chapter on the readjustment of defaults, several appendices, and a bibliography.

To this reviewer, the theoretical approach seems to be sound throughout the volume. The argument is remarkably free from interested political and economic bias which has beclouded much of the theoretical and practical discussion of the international problems under consideration.

Many readers will be astounded to learn from the statistical analysis, most of which is based on official sources, that the economic results of American foreign security investments are on the average by no means bad, particularly so when compared with earlier experiences of other nations. Naturally, in this favorable average great differences are concealed in the results of deals with various countries and various borrowers. The inconsistency of the American economic structure and American economic policy with regard to the role of a creditor nation is properly stressed. A correspondingly deep analysis of the economy of the main debtor countries, particularly of Central Europe, might have added interest and value to the volume.

Short term investments and borrowing are treated only occasionally as forces modifying the effects of long term and direct foreign investments. The latter distinction is used correctly in stressing the varying importance between largely dividend-bearing (direct) and interest-bearing (bonds) investments with regard to the transfer problem in times of depression (p. 202). The compilation of statistical material makes a valuable contribution to the descriptive literature dealing with post-war world economic conditions.

The chapter dealing with the role of banks does not seem wholly convincing. While it explains and partly justifies the activities of banks and even acknowledges numerous mistakes, mistakes that might be excused on the score of lack of experience of the United States in this field as compared with England, this chapter does not dispose of the fact that certain Latin American and European investments have been poorly selected and that capital has at times been forced upon hesitant borrowers. The authors calculate that the gains which could be realized from the average gross spread between the prices at which the banks bought foreign securities and those at which they sold them were on the average moderate. This is an interesting fact and one that might dispel unjust accusations of a generalizing nature. It leaves, however, the possibility of too large spreads in individual cases. Also, it does not indicate whether commissions were paid by borrowers in individual cases.

In general the situation is followed up as far as the end of 1935, thus giving a complete account of events all through the depression. The book leaves the reader with a great deal of comprehensive and accurate information that is presented with sound reasoning.

*Duke University and the University
of North Carolina*

HERBERT VON BECKERATH

The Economic and Social Foundations of European Civilization. By Alfons Dopsch.* New York: Harcourt, Brace and Co., 1937. Pp. xiv, 404. \$5.00.

This book embodies the modern idea that each generation tends to re-write history. New material is available and interest and emphasis change. As Alfons Dopsch clearly points out the rela-

tionship of the Germans and Romans at the beginning of the Middle Ages is "one of the oldest of historical problems" (p. 27). It has been approached by Humanists, eighteenth century apostles of freedom and equality and nineteenth century sociologists, each projecting their ideals back into the historic past: but as economic history has become "more thorough and expanded into detailed research" (p. 27) the basis has at last been laid for an accurate and scientific reconstruction of the past. The author relies upon wide research and careful documentation.

Wisdom often permits an author to state his own conclusions. Alfons Dopsch holds that the "Germans did not behave as enemies of culture, destroying and abolishing Roman civilization; on the contrary they preserved and developed it. . . . The Roman world was won by the Germans from within, by a peaceful penetration which went on for centuries, during which they absorbed its culture, and even, to a considerable extent, took over its administration" (p. 386).

The author rejects the theory of the Mark based on the idea of "the freedom and equality of all Germans" at the times of Caesar and Tacitus. The remarkable increase of the semi-free population is explained in terms of a "virile upward movement of the lower classes," particularly the slaves. The feudal system is presented as a slow fusion of the Roman *vassallitum* and *beneficia* with the German *comitatus*. The continuity of the economic side of town life is stressed even when there have been breaks in the Roman municipal organization. "Free citizens. . . were already active elements in industry, trade and financial enterprise" (p. 326). Money economy was not displaced by barter. "Commerce and trade developed into independent professions because of a freely working price mechanism" (p. 389).

The fifth and sixth centuries appear as an "organic and vital connecting link between late Roman and Carolingian times" in which much of what has been regarded as creations of a Carolingian Renaissance appears "never to have been lost at all, but to have persisted in those obscure, sparsely documented and twilight centuries of European cultural development" (p. 390).

It would be presumption for the reviewer to sit in judgment upon a work of an eminent authority in a very specialized field. One

cannot fail to recognize extensive research and a careful objective weighing of evidence. The book is an abridgement of the original German *The Economic and Social Foundations of European Civilization from Caesar to Charlemagne*; and one cannot help regretting that the thoroughly readable translation by N. D. Beard and Nadine Marshall has been published without the words that would place it in historical perspective. This excellent treatment of the period from Caesar to Charlemagne does not pretend to be an all embracing study of the economic and social foundations of European civilization.

University of Virginia

D. CLARK HYDE

The English Cooperatives. By Sydney R. Elliott. New Haven: Yale University Press, 1937. Pp. viii, 212. \$3.00.

The editor of *Reynold's News*, a Sunday paper acquired by the Cooperative Press in 1929, has produced an excellent book on the English cooperatives. It gives a well-written sketch of the growth of the cooperative movement but is not a detailed history. For that one must turn to the volumes quoted by Mr. Elliott in footnotes but not included in the oddly chosen and inadequate bibliography given in the appendix. But the particular virtue of Mr. Elliott's book is the way in which it relates the achievements and problems of the cooperative movement to the present phase of monopolistic capitalism and economic nationalism. It achieves the unusual distinction of being wider in scope than its title indicates by drawing a clear picture of the growth of monopoly and its protection by the state and of the effect of this on the interests of the British consumer. Similar forces are at work elsewhere so that the interest of the subject is not confined to the borders of Great Britain.

In Mr. Elliott's words, "Capitalism (has gone) on the dole on a grand scale." The capitalist, finding his profits disappearing uses his political power to invoke the aid of the state and the law. Monopolistic tendencies, already well-established before the war, are fostered by the more recent devices of marketing agreements, subsidies, and quotas and protected by a tariff wall. In showing the extent to which this process has gone in Britain and the inflation of the consumer's bills by the dole to producers, Mr. Elliott

uses evidence from government commissions. He uses the same sources with telling effect in support of his thesis that "the only guardian of the consumer against the dangers here revealed is the Co-operative Movement," since the government has not carried out the recommendations of its own commissions.

In his enthusiasm for the cooperative movement as providing an alternative to the present system, Mr. Elliott points to the facts that cooperatives can effect economies because they do not have to meet large costs of capital promotion, they are free from the dangers of speculation and watered stock and can reduce waste in salesmen's efforts and advertising to a minimum. They have the advantage of operating within a "known market" and by distribution of dividends on purchases they approach the objective that "every increase in productive powers must be accompanied by a corresponding distribution. . . . of the means by which it may be bought for consumption." The quotation is from the *Times* and is cleverly used by the author in showing that cooperation offers a way out of one of the dilemmas recognized by enlightened capitalists. Mr. Elliott further points out that "the difference between cooperative and joint-stock organization emerges most clearly in that matter in which their similarity should be most marked—the matter of collective direction of collective funds." The separation of ownership from management in modern business has led to dictatorship and financial manipulation but membership in a cooperative society provides opportunity for active participation in the "world's biggest Big Business." Cooperators, looking back on their achievements in the past may well consider that they have laid the foundations of the state of the future, but at present the main task is to control price levels and check the excesses of monopoly.

Such is the case which Mr. Elliott builds up for cooperation. It is hard to disagree with his statements about consumer's cooperation as a system but one could wish that he had rounded out his treatment with criticism of the actual working of the cooperative movement. Some of its problems are suggested in the chapter called "Growing Pains" but the difficulties are glossed over. For instance, the power of cooperation as a protection of the consumer and its potentialities as the basis of a new system depend on its

efficiency in expanding trade. Can a large and democratic organization, insistent on local autonomy and necessarily somewhat slow-moving, match the aggressiveness and flexibility of private trade? At present the movement has been unable to find a solution for the relations of the wholesale societies and the productive federations. Can it then solve the much more difficult problem of its relations to trade unionism and the Labor Party, some of whose present policies such as support of protection conflict with cooperation's primary aim of guarding the consumer? These are some of the problems recognized by the movement itself and discussed at cooperation meetings and congresses. Perhaps it is a tribute to the considered and documented case presented for cooperation by Mr. Elliott's book that one feels aggrieved that he did not choose to enhance its value by the addition of more critical material. Nonetheless, the picture he draws of the "new economies" deserves study by anyone who is interested in the problems of the profit system and its effects upon that "Forgotten Man of Commerce," the consumer.

Sweet Briar College

GLADYS BOONE

World Wheat Acreage, Yields, and Climates. By M. K. Bennett and Helen C. Farnsworth. Wheat Studies of the Food Research Institute, Stanford University, Vol. XIII, No. 6, March, 1937. Pp. 265-308. \$1.25.

This is just one of the numerous wheat studies of the Food Research Institute of Stanford University. Like many of its predecessors in this series it is excellent. In a deeper sense, however, this is not "just one"; it is very much more. It is unique. It is a piece of pioneer work, blazing new trails in the field of analytical geography.

Its authors, for the first time to the reviewer's knowledge, have applied to the field of plant geography the most modern techniques that statisticians have developed. They have attempted to determine statistically correlations between wheat acreage and climates, between wheat yields and climates, and, in particular, between yields and precipitation and temperature. The study breaks new ground also in the technique of map making. Following, perhaps, a lead suggested by the statistician who, in order to deter-

mine what lag furnishes the best correlation between two series of data, slides transparent charts one above the other, and thus ascertains maximum agreement between two or more curves, the authors of this study have applied a similar technique to related data indicated on a series of maps.

In this study three world wheat maps are presented. The first shows, by dots, the geographical distribution of world wheat acreage; it also shows, by color of dots, the average postwar levels of wheat yields per acre in 257 wheat-growing areas into which it has been found feasible to divide the world wheat acreage. The second map shows the principal climates of the world within which wheat is grown; and the third shows the parts of the world wherein annual rainfall averages less than 20 inches, 20-40 inches, and above 40 inches. The second and third maps, on semitransparent paper, may be used in analysis of the relation of wheat acreage and yield per acre to climate and to annual rainfall.

This work is of great immediate value to the student of geography whose understanding of the world wheat situation is appreciably advanced. Its greatest value, however, seems to lie in that it suggests a pattern to be followed by others who are facing similar problems of multiple correlations of factors functioning in space.

University of North Carolina

ERICH W. ZIMMERMANN

Diminishing Returns and Planned Economy. By George M. Peterson. New York: Ronald Press Co., 1937. Pp. xii, 254. \$3.00.

The purpose of this book is two-fold: (a) to indicate by means of graphic analysis the relationship between the law of diminishing returns in its various guises and all the economic variables actually connected therewith; (b) to indicate in what respects solution of problems involved in economic planning turns on the application of the principles of classical orthodox economics. One chapter is devoted to simple illustrations of the law of diminishing returns and to indications of the analogies between returns analysis and that actually employed in the physical sciences. Two chapters are devoted to a graphic analysis of all aspects of diminishing returns; one to units of measurement utilizable in returns analysis; two to the relation of this law to economic theory and to popula-

tion problems; one to the optimum size of producing units and to problems of planning *per se*.

This text will be especially liked by economists who appreciate the treatment of the laws of returns by F. M. Taylor and J. D. Black. It should prove very useful in a course in "intermediate theory," or even in an elementary course, given time and fairly good students. The author makes a number of excellent suggestions for revising the usual requirements for economics majors and graduate students, suggestions in accord with the needs of the times if not with the prescriptions of pedants who prefer Sanskrit and idle-fact grubbing to analysis and comprehension.

Duke University

JOSEPH J. SPENGLER

Introduction to Economic Analysis. By Archibald MacDonald McIsaac and James Gerald Smith. Boston: Little, Brown & Co., 1937. Pp. 426. \$1.40. 10

Messrs. Modlin and deVyver kindled the hopes of teachers of elementary economics with the presentation of the "Development of Economic Society." With that volume the publication of a six-book series by members of the staff of the Department of Economics and Social Institutions of Princeton University designed to serve as an introductory text in economics was announced. Messrs. McIsaac and Smith now present the second volume in this series. Their offering adds assurance that the complete series will contribute much to the teaching of elementary economics.

Having gained an understanding of the evolution of economic society in the first volume of this series "this book, in turn, acquaints him with the fundamental tools of economic analysis." The approach is from the institutional point of view. An especial effort is made to relate economic theory to the everyday happenings of real economic life.

The authors' realistic approach is illustrated by their treatment of prices. More than two-fifths of the entire volume is devoted to this subject. They abandon the traditional but naïve assumption of free competition. Their analysis is based upon a recognition of the monopolistic elements in modern economic society. The student is left with a clear recognition of the controlling influence and cardinal importance of price adjustment throughout the entire economic system.

From the treatment of price these authors turn logically to a discussion of "producer's demand." The student learns how the prices for goods and services are translated into the prices of the agents of production. This description is clear and stated with admirable simplicity. In three succeeding chapters the income derived from each of the agents of production—wages, rent, interest and profit—are effectively and clearly pictured.

In the two concluding chapters dealing with "Economic Equilibrium" and the "Business Cycle," these authors integrate their descriptions of each of the various parts of the economic system. The discussion of economic equilibrium represents an especially significant contribution to introductory economics. Little attention is given to the depiction of the periodicity of business cycles in the next chapter; more emphasis is devoted to causative factors and theories. No analysis is made of the current business cycle.

Not always do these authors succeed in relating economic theory and practice. Nor are they always successful in pitching their statement in terms of the experiences of men and women of college age. Several chapters are supplemented by mathematical notes which will be intelligible to few elementary students. Yet this book, as a whole, is well organized and attractively presented. It is equipped with a useful index which further enhances its material.

Social Security Board

JOHN J. CORSON, 3RD

Public Utility Rate Making and the Price Level. By E. M. Bernstein. Chapel Hill: University of North Carolina Press, 1937. Pp. x, 142. \$2.50.

The theme of this scholarly study is public utility rate making, with special reference to changing price levels. The problem is dealt with in ten well documented, short chapters, which are confined to the essentials. Leading topics discussed are: the problem in general; the rate making rule, as interpreted by the Supreme Court; the fundamental weaknesses in the rule; the pragmatic methods of rate making employed by the commissions; and a solution of the rate making problem.

The analysis of the methods of determining value and return which the commissions have followed during the period of the

World War and the recent depression embraces the major portion of the book and constitutes the author's chief contribution. It is shown that the regulatory bodies have been virtually forced to resort to substitutes for the rate making rule which are either inherently faulty or contrary to the position of the courts. Prominent among these rate making criteria of expedience are: corporate needs, reasonable worth of service, investment, reproduction cost at average unit prices, corrective index valuation, split inventory, temporary deficiencies of return, normal rate of return, and interest and dividend requirements.

From these the author draws his solution of the problem. Briefly, it is proposed to establish a modified prudent investment basis for valuation and the common stock basis for return. An initial valuation is to be arrived at by agreement, additions and betterments are to be valued at actual cost prudently incurred, and deductions for depreciation are to be measured by the reserves accumulated. Thus the prudent investment would be established eventually for all depreciable property. Interest and dividends on preferred stock are to be allowed as capital expenses, and the return to common stock is to be that rate which will maintain the market value of the common stock of a representative company at par. Deficiencies in the return for any given year are to be compensated in subsequent years. In order to avoid constitutional objections, the scheme is to be put into effect through franchises issued to all utility companies agreeing to the provisions outlined. Companies accepting the franchises are to be assured of freedom from competition from publicly owned plants, contingent on the right of public purchase at the rate base figure; while concerns refusing to accept are to be subject to such competition. The reader will see that this is a modified form of the New York proposals.

Most students will probably agree that the prudent investment should be the rate base and that the rate of return should take into consideration the utility's financial structure. There may be less accord, however, on other features of the plan. With a change of attitude on the part of the Supreme Court (possibly not now beyond hope) the major objectives could be realized more fully, without the disadvantages of rigid contracts. With changing

prices, there is need for definiteness; but there is also need for flexibility. No scheme yet proposed will wholly remedy the evils of fluctuating prices. At any rate, would the companies accept? It is by no means certain that the threat of public ownership would be a sufficient inducement, and much of the success of the similar procedure in Massachusetts has been due to the careful regulation of securities in that state and to financing through the sale of stock. Notwithstanding these comments, the study is suggestive. It would have been interesting to know what the concrete results would have been had the plan been assumed to be in effect in a few particular instances.

University of Florida

TRUMAN C. BIGHAM

The Objective Rate Plan for Reducing the Price of Residential Electricity.

By William F. Kennedy. New York: Columbia University Press, 1937. Pp. x, 83. \$1.25.

In presenting this study to the public Mr. Kennedy has described what is, in the opinion of many, one of the most significant contributions to the practice of rate making. Promotional rates have for years engaged the attention of electric utility managers who realize the necessity for the extension of electric service if the industry expects to continue development. Various types of promotional rates were tested on domestic consumers but the attempts were none too successful since the promotional rate structures were either overly discriminatory or were too complex to be of practical use.

It was in 1933 that the Alabama Power Company initiated the objective rate plan at the instance of an order by the Alabama Public Service Commission. Briefly, the objective rate plan may be described as consisting of two separate schedules effective coincidentally. One schedule is the immediate rate; that is, the rate schedule which is effective if the consumer does not increase his use of electricity over that of the corresponding month of the previous year. The objective rate which is lower than the immediate rate applies if the consumer increases his usage over the corresponding period of the past year. Thus the utility is guaranteed the same revenue from the customer if he does not increase his usage. At the same time the consumer is incited to use more

electricity because by so doing he may obtain more service at a lower price.

That the objective rate has been successful in increasing usage is demonstrated by the fact that the rate of increase in kilowatts used per meter for the nation is less than that for the territory served by the Alabama Power Company and two other utilities, namely, Georgia Power and Light Company and Tennessee Electric Power Company which instituted the rate shortly after the former company. Through the increase in consumption decreases in price per kilowatt hour were effected. The revenues of the utilities were increased considerably because of the increase in consumer demand.

This work should prove informative to the student of public utilities and should interest the domestic consumer of electric power in that he would see how his electric rate could be lowered even in the face of declining business conditions without reducing the revenue of the utility. The book is not in general too technical for the layman, yet it represents a thorough research.

University of North Carolina

CLARENCE E. KUHLMAN

The Wasted Land. By Gerald W. Johnson. Chapel Hill: University of North Carolina Press, 1937. Pp. vi, 110. \$1.50.

This stimulating little volume assays the task of presenting within 110 pages the essential part of the message conveyed by Howard W. Odum in his 664 page book on *Southern Regions*. The author writes as a Southerner in his own right, since he was formerly a newspaper man in North Carolina, Professor of Journalism in the University of North Carolina, and since 1926 has been an editorial writer on the staff of the *Baltimore Evening Sun*. The style is that of the spirited and gifted journalist which makes the reading of the book an easy and interesting undertaking.

In the first section of the discussion the question is posed: "Can the South regain a position relatively as important in the Union as the one it held between 1776 and 1860"? And the conclusion reached by the author is that there is no insuperable obstacle in the way of the Southern people's achieving a "position not merely as good as, but better than they held in the early days of the republic." The second part deals with "The Waste of the Land"

in the South, and sets forth an appalling array of evidence to show that this has been and still is shockingly great. The third section of the book concerns "The Waste of the People," and the author states that the Southeast has dealt with its human wealth just as it has with the wealth of its soil—"part it has let slip away altogether, part it has failed to cultivate at all, and part it has clearly misused."

Thus the South is a region characterized by wasted land, wasted people, and wasted opportunities. What is the direction of the answer? In a new concept of regionalism, with a clearly devised plan comprehending the reconstruction of (1) agriculture, (2) industry, (3) politics and government, and (4) institutions of learning. Perhaps twelve years of "unprecedented strategy, skill, boldness" along such well-planned lines will turn the trick.

The volume should be widely read, and will do a great deal of good for the cause of an improved South. One is led to wonder, however, whether too much is expected of regional planning in too short a time. Well conceived plans are badly needed, much better than we now have, but the process of translating them into action is undoubtedly going to be a realistic and perhaps a painfully slow one at times, particularly in a democratic country. The author deprecates the expectation of the process of miracles, but the tone of the direction of his answer to the problem of regional reconstruction reflects a decided allegiance to such a point of view. The process will more likely be that of unrelenting and intelligent labor in accord with the principle, "for precept must be upon precept, precept upon precept, line upon line, line upon line; here a little, and there a little," until the broader reconstruction is leavened and achieved. And, it is perhaps better and safer that this should be the case. We may be certain that, in spite of its numerous deficiencies, the South is not going to collapse tomorrow, economically or socially, nor, is it going to be made a paradise in a generation, much less in a little more than a decade.

University of Virginia

WILSON GEE

Socialism versus Capitalism. By A. C. Pigou. London: Macmillan & Co., 1937. Pp. vii, 139. \$1.75.

This collection of essays on socialism and capitalism, like Professor Pigou's *Economics in Practice*, is intended for the general

reader. Nevertheless, their general excellence should make these essays on some aspects of socialism and capitalism of considerable interest to professional economists and their students.

The essays are concerned with the comparative problems of distribution of income, the allocation of productive resources, unemployment, technical efficiency, and the rate of interest, under socialism and capitalism. In general, Professor Pigou believes that socialism offers many advantages in bringing about a more desirable organization of production, distribution, and utilization of the national income; but he also holds that these advantages may be secured to some extent for capitalism by appropriate state action. There remain some fields of economic activity in which state action cannot secure the advantages of socialism, and in such fields there is reason for favoring the socialization of industry.

Economists will be particularly interested in the third and eighth essays on the allocation of productive resources, and in the fourth essay on unemployment. Professor Pigou shows how a socialist society could use accounting wage and interest rates (opportunity costs) as distinguished from actual wage and interest rates paid to workers and savers as a device for assuring the proper allocation of productive resources. On unemployment, Professor Pigou holds that frictional unemployment, the type due to the immobility of labor, would be as common in a socialist as in a capitalist society, but that some types of cyclical unemployment would be avoidable under socialism.

In the final essay Professor Pigou states his view on policy. He would retain the general structure of capitalism, although he would diminish inequalities in the distribution of income, expand public expenditure on health and education, socialize some industries, and require the Bank of England to manage the monetary system to diminish the violence of cyclical fluctuations. He believes in "the path of gradualness—to mould and transform, not violently to uproot." And he adds this final sentence: "Gradualness implies action, and is not a polite name for standing still."

University of North Carolina

E. M. BERNSTEIN

Goliath: The March of Fascism. By G. A. Borgese. New York: Viking Press, 1937. Pp. ix, 483. \$3.00.

In order to understand fascism, it is necessary to look at the

mind of the Italian people as it is rooted in the tragic past of Italy. Professor Borgese has provided in the first third of his book a brilliant study of the "myths of Rome" as they were forged by Dante, Machiavelli, and the Risorgimento, to give vitality and compulsion to the triumph and march of fascism. Italy was unified, but left with a sense of frustration, of destiny unfulfilled, and it is the promise of making this myth of empire reality that gives a key to the mad world of Italian fascism.

Professor Borgese dismisses the economic interpretation of fascism as inadequate. Fascism should have arisen wherever capitalism was menaced—in Russia after the fall of the Romanov dynasty, in America following the depression of 1929. Instead, communism triumphed in Russia, the laggard industrial state, and fascism came to Italy where the capitalist class was aggressively weak. Men are creatures of their passions rather than their interests. Fascism is the result of an emotional outburst, thoroughly irrational in its nature.

Two events set the stage for the world march of fascism, the coming of the depression to America and the triumph of Hitler. The first event assured Mussolini of an alibi for his own economic failure, and the second, provided him with an international political horizon. German fascism, however, is collective and, therefore, more responsible; Italian fascism is individual anarchism and completely irresponsible.

Professor Borgese is an eminent critic, poet, novelist, and philosopher. He was editor of foreign affairs of *Corriere della Sera*, of Milan. He played a part in the events of which he writes, and ultimately chose exile rather than to take the fascist oath of allegiance. He has written this book directly in English. The prose is dramatic, passionate, colorful. The unfolding of his thesis is made as enthralling as a novel.

Professor Borgese has contributed a notable study of the roots of fascism and the forces which compel it to march or to perish. It may seem to an economist that there is more of an economic pattern to this unfolding than he admits. We did not get fascism in 1929, it is true; but if depression comes again, with cumulative force, is it difficult to foresee the economic alignments? Fascism did not come to Russia; would there have been fascism if Kornilov

had beaten the reds to control? Is it an abandonment of Marxism or of economic fatalism that has led to the Popular Front?

Since Professor Borgese places the compulsions in the realm of ideas and feelings,—myths, passions, frustrations, desires, hates, will—an economist should not look for an intensive analysis of the economic problems of fascism. It should be remembered, however, that this is lacking not because of neglect, but because of emphasis.

Washington and Lee University

MERVYN CROBAUGH

The Negro's Struggle for Survival. By S. J. Holmes. Berkeley: University of California Press, 1937. Pp. xii, 296. \$3.00.

The book is a discussion of racial competition from the biological standpoint. The Negro population and the white population in the United States are considered separate species occupying the same territory and dependent upon the same means of subsistence. The tendency, biologically, is for one eventually to supplant the other.

The study is based on an investigation of birth rates, death rates, infant mortality, immunity and susceptibility to disease, the causes and biological effects of migration, the results of race mixture, and the influence of other forces, economic, psychological, and social. The contents of the book deal with "the growth of the Negro population," "birth rates," "mortality rates," "migration," and "will the whites absorb the blacks?"

The author concludes that the Negro group will continue to increase. In view of this increase he raises the question as to how the relations of Negroes and whites will be worked out. Four possible ways are suggested: "(1) We may all become white. (2) We may all become black. (3) Whites and blacks may fuse into a hybrid stock. (4) We may become permanently bi-racial, either mingling together, or occupying different areas." The fourth way appears to be operating in the South. Here the two races are both mingling together and occupying different local areas.

In view of the question raised in anthropological circles as to whether there is a pure race, one may ask whether it is correct to designate Negroes as a "species." To what extent have legal

definitions of the term "Negro" influenced the discussions of biologists? Have they taken due account of the gradations in the Negro group from those with an infinitesimal trace of Negro blood to those designated as pure Africans, so-called?

The writer's statement that in many localities whites have supplanted Negroes and Negroes have supplanted whites may be questioned. The black belt areas in the South have shrunk. There is a movement of rural Negroes from black counties to white counties. The result is a more even distribution of the Negro population over the entire South.

The book is a contribution to the literature on the race problem. The economic aspects of the struggle for survival make it of interest to the economist.

Tuskegee Normal and Industrial Institute

MONROE N. WORK

The Federal Reserve Bank of San Francisco. By Parker B. Willis.
New York: Columbia University Press, 1937. Pp. xii, 277.
\$3.00.

Perhaps no segment of American banking literature is as abundant as that which deals with the history, organization, operations and policies of the Federal Reserve System. Most prior treatises, however, have approached the system as an organically integrated structure devised to perform those functions commonly associated with central banking within the political frame work of national sovereignty. The present volume reverses the process by analyzing the Federal Reserve Bank of San Francisco as a component part of the reserve structure. The location and physical characteristics of the Twelfth District together with its industrial organization and its financial and commercial relations suggest the probability that here, if anywhere, a regional bank would have ample scope to display its peculiar advantages.

The author with due propriety first delineates the economic characteristics and financial organization of the district with ample, if not disproportionate, attention to California. The organization of the bank next engages his attention in one of the better chapters of the book. Two chapters are then devoted to the operations of the bank, while the three subsequent chapters deal respectively with relations between the San Francisco bank

and the reserve system, the foreign relations of the bank, and a concluding summary. The author contends that a regional bank, which for some reason he uniformly terms a central bank, was required by the economy of the section. He thinks the area was properly districted. With respect to the services of the bank, he asserts that it has improved the quality of the credit analyses and the portfolios of member banks, and demonstrates a wider use of acceptance financing as a result of its activities. The preference of the community for hard cash has been modified and the work of banking supervision improved, but no adequate solution of the troublesome issues involved in branch banking in the area was attained. With respect to rate policies and open market operations, the author concludes that no distinctive district policies have evolved since both the discount and acceptance rates have closely followed the New York rates. The statistical evidence adduced to support this conclusion appears quite inadequate as no effort is made to measure or evaluate the spread between the rates in the twelfth and other districts. The view is expressed that the rediscount rate as an instrument of control in the district is of little avail because local banks maintain customers rates uninfluenced by the fluctuations in the money markets (p. 128), though the chart on the succeeding page suggests considerable sensitivity, and the author on the next succeeding page states that the rates on commercial paper and on security loans fluctuate with, but above, the rediscount rate. While the study as a whole contains a substantial amount of informative material with respect to the administrative activities of the bank, the analysis of rate policies is not as comprehensive and penetrating as might be desired.

University of North Carolina

JOHN B. WOOSLEY

An Introduction to Money, Banking, and Corporations. By Paul M. O'Leary and John Patterson. New York: Macmillan Co., 1937. Pp. ix, 175. \$1.25.

Although designed to acquaint beginning students in the elementary economics course with the problems of modern private finance and the implications of various banking and corporate policies, this excellently-written volume might well be read with profit by more advanced students of those subjects. The treatment

is critical and analytical throughout with the authors' assumptions clearly stated in the introduction. Enough up-to-date descriptive and factual material is interspersed, however, to give the student a sound basis for following the analysis.

The first six chapters, are devoted to our monetary and banking system with the primary emphasis on a functional analysis of commercial banking. The following topics are emphasized: the checking function of commercial banks; the place of liquidity and clearing house balances as steering devices for bank policy; the use of reserves tempered by regulatory discretion as breaks thereon; the conflict between absolute liquidity and the extension of loans; the passive nature of deposit credit in relation to business activity. Although "economics must be oriented on a money income concept," the authors decry the belief that monetary theories of cyclical fluctuations are fundamental. The concept of money income and the emphasis on the function of money as a unit of account call for a discussion of accounting technique which is provided in an appendix.

The second half of the book, surpasses the high merit of the first. The relation of the modern business corporation to institutional interferences with free, competitive price forces is stressed. Among the factors that come in for special attention are: the impaired functioning of the profit motive due to separation of ownership, management, and control; the loss of individual control over the disposition of incomes due to the re-investment of corporate earnings; the importance of the holding company and trade association in fostering monopoly; the increasing necessity for state control.

Objections will be raised to this book on the grounds that it is "over the heads of beginning students," and that the material treated therein will be duplicated in later courses. The validity of such claims can best be judged in the light of individual circumstances. Trivial in comparison with the generally high merit of the book, and perhaps inherent in the nature of the discussion, is the annoyingly frequent habit of mentioning a point, but then postponing treatment of it.

University of North Carolina

C. H. DONOVAN

Banks, Credit and Money in Soviet Russia. By Arthur Z. Arnold.
New York: Columbia University Press, 1937. Pp. xxiv, 559.
\$4.00.

This book is by all odds the best book on the subject which has yet appeared in English. Although the greater part of the book is devoted to the Soviet period, brief preliminary remarks are made about the Russian currency system prior to 1860. The period after 1860 is covered in greater detail, with chief reliance upon the adequate already existing works dealing with the period. The main purpose of the author is, however, to give a comprehensive description of the Soviet banking and currency system and in his task he has a high degree of success. In spite of a slight flavor of unreality due to an inevitable and unavoidable lack of intimate knowledge of the Soviet economy and perhaps due also to a tendency to carry over to the Soviet world somewhat old fashioned ideas about what constitutes sound banking, the book gives evidence of painstaking use of the published sources. It is a tremendous job to go through the source material and it is an even more difficult task to digest this material after it has been examined. The excellent chapter of summary and conclusions shows better than anything else how well the author has carried out this digestive process. The appropriate Soviet sources seem to have been fully utilized before the assimilative process began.

The author leaves a clear picture of the trend of development of Soviet currency and bank credit. He shows at the same time the important deviations from the trend which have occurred from time to time. The author traces the development of the State Bank and its cognate institutions through the period of monetary stabilization following the inauguration of the New Economic Policy, through the Banking Reform of 1930 and the "Counter-Reformation" which took place shortly thereafter, down to the status of the banking system in 1936. The functions of the State Bank he finds now to be to provide short-term credit, to act as a bank of issue, to act as fiscal agent for the Treasury and finally to function as cashier for the special banks and for the whole economic apparatus. The four "special banks" which have taken over long-term financing have ceased in fact to be banks in the

true sense for their "advances" are now properly designated as grants which are non-repayable. Consequently they really function as arms of the Treasury in carrying out the provisions of the governmental budget.

This book should be in all college and university libraries.

Duke University

CALVIN B. HOOVER

Money and Banking, 1936-37. Vol. I: Monetary Review. By the League of Nations. New York: Columbia University Press, 1937. Pp. 170. \$1.50.

Money and Banking, 1936-37. Vol. II: Commercial Banks. By the League of Nations. New York: Columbia University Press, 1937. Pp. 174. \$1.50.

These volumes are sequels to similar volumes of past years. They afford a comprehensive, authoritative, and unbiased summary of world developments in foreign exchanges, gold production and reserves, and interest rates in recent years, together with detailed money and banking data for all important countries for 1929 through March, 1937. They are most valuable as a source of data and as a review of recent trends.

More than half of the first volume is devoted to the review, composed of five separate studies. In the first study the course of the exchanges is traced, showing how every currency except the Albanian frank has suffered depreciation or devaluation or had been subjected to exchange control since 1929. One after another, the different countries, after struggling to stay on gold, gave it up or devalued their currencies; then many of them immediately engaged in another struggle to prevent incoming gold from causing inflation.

The second study discusses briefly the workings and characteristics of the forward exchange market. In several instances this market did not anticipate with any degree of accuracy the fluctuations which actually occurred in currencies. The third study discusses the establishment of the different stabilization funds and the scant data available on their operations. Their principal task is to offset the effects of short-term capital movements and prevent them from affecting the internal credit balance.

Data in the fourth study show that gold production increased from about 400 million old gold dollars in 1929 to about 675 millions in 1936. Total production, in the same unit, from July, 1931, through 1936 was about 2,711 millions; de-hoarding brought the total to about 3,640 millions, of which about 2,206 millions were added to central monetary reserves. Currency devaluations still further increased the monetary significance of this vast increase in gold. On the other hand, countries which in 1929 held large amounts of foreign assets as cover have, except for those linked to sterling, sharply reduced or eliminated those holdings, often converting large amounts into gold.

The study of interest rates notes the unprecedented decline in interest rates, except for the gold-bloc countries, between 1929 and 1936, the very low levels maintained, and the great spreads between long-term and short-term rates. A possible explanation for the latter, and for the latter effect which extremely low short-term rates have had in stimulating recovery is that lack of confidence and fear of capital depreciation have blocked long-term investment and that the short-term rate "becomes a matter of importance to entrepreneurs only after a decline of long-term interest has had its effect in stimulating investment activity in productive equipment. . . ."

The tables at the end of this volume are most valuable and interesting. They show, for the years 1929-1936, gold values of currencies, the composition of currencies, changes in gold holdings and other assets of central banks, interest rates, indices of wholesale prices and of cost of living, and changes in deposits, cash ratios, and assets of commercial banks.

The second volume gives extensive data on the commercial banks of 45 countries. Descriptive material covers the currency unit and its value and the banking organization in each country. Principal assets and liabilities of central and commercial banks are analyzed and figures for the latter are arranged in the form of a summary balance sheet. Earnings figures for commercial banks are given where available. In most cases figures end with 1935, although data for 1936 are found for some countries.

All in all it would be unreasonable to expect more usable and

pertinent data on world developments in money and banking during its most chaotic period than is to be found in these two volumes.

Duke University

B. U. RATCHFORD

The Power to Govern. By Walton H. Hamilton and Douglass Adair.
New York: W. W. Norton & Co., 1937. Pp. 254. \$2.50.

Economists have long regarded the proposition as elementary that exchange is a phase of production; that an economic order in which market price guides the apportionment of resources forces one to view the creation and distribution of goods as one process. When the Supreme Court tries to drive a wedge between the two, it is creating a legal distinction that has little or no validity in the real world. Yet the Supreme Court, in interpreting the commerce clause of the Constitution, has repeatedly insisted on the distinction.

This conflict between the law and economic realism has prompted Hamilton and Adair to examine the meaning of the word "commerce." From the dictionaries of 1787, from the debates in the Constitutional Convention, and from the general "climate of opinion," they make a strong but not completely convincing case for the view that "commerce" in the minds of the framers of the Constitution was a comprehensive term including fabricating for sale and the sale of what was fabricated in a handicraft economy; in other words, that it was practically synonymous with business in the broad sense. Our mercantilistic-minded fathers intended to give Congress control over business. In the nineteenth century as *laissez faire* supplanted mercantilism, business turned to the Court to escape regulation and the Court accommodated by construing the commerce clause to include transportation, purchase, and sale of commodities between the citizens of different states but to exclude manufacturing. We need now a re-interpretation of the commerce clause to make it more akin to its 1787 meaning.

In spite of its clever Hamiltonian (Walton) phraseology, the book is not very satisfying. The authors show that the meaning of "commerce" changed in the nineteenth century from what it was in the eighteenth. The Supreme Court reflected the change and should not be condemned for so doing. The time may now

be ripe to give the term a meaning different from its nineteenth century one. To hold to the nineteenth century meaning today may be labelled "reactionary"; to give it a more sweeping meaning may be "liberal" as well as highly desirable. But why, in order to prove this, the authors should write a book, nine-tenths of which is devoted to a discussion of mercantilism and the struggle over the ratification of the Constitution is puzzling. The first few pages and the last few only are relevant. It looks like somebody was trying to make a book instead of a contribution.

Since the book was published we have a Supreme Court that promises to give us the interpretation of the Constitution that the authors seem to want. If anyone believes that the vexing problems of interpretation of the commerce clause are now happily in way of solution let him ask himself just how much territory a liberal interpretation of this clause takes in. Can and should wages and hours in laundries be regulated by the federal government? In fixing wages in textile manufacturing, should a differential in favor of the South be recognized and if so, how much? Where is the line between national and local authority over economic matters to be drawn?

Recently we have had evidences of renewed interest in the meaning of words; they are talking about "semantics"—the study of communication, the interpretation of signs. Let us hope it will be more productive than this book; and that Hamilton will devote his unquestioned abilities to more fruitful ends.

The Woman's College,
University of North Carolina

ALBERT S. KEISTER

Sunspots and Their Effects. By Harlan True Stetson. New York: McGraw-Hill Book Co., 1937. Pp. xv, 201. \$2.00.

Dr. Stetson offers his readers an interesting survey of the many ways in which the sun and its behavior, particularly through the fluctuations in the number and area of sunspots, may affect activity on the earth. Regardless of what one believes as to the relation of sunspots to business, it is impossible to read this book without being impressed with the complete dependence of man on the sun. Not only are the growing things, trees and crops, evidently directly affected by fluctuations in solar activity, but possibly even the

health and mental attitude of man himself. Dr. Stetson presents an impressive summary of the results of research on these matters.

To the economist, the volume will be of particular interest for its frequent emphasis on business fluctuations. While there is a minor error or two in the chapter on sunspots and business, no one need be disturbed on that account. Dr. Stetson does not pretend to present a serious study of business fluctuations, but an informative discussion of what sunspots may do to our every day affairs. In this he has succeeded admirably so far as a non-astronomical reader of this charming book can judge.

University of North Carolina

E. M. BERNSTEIN

The Brotherhood of Railway Clerks. By Harry Henig. New York: Columbia University Press, 1937. Pp. 300. \$3.00.

The Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees was definitely a "war baby" among labor organizations. Although the union was formed in 1899, its membership did not exceed 6,000 until 1917; by 1920, however, the astonishing figure of 186,000 had been reached. The union lost heavily during the 1921-1922 deflation of the labor movement, but managed to retain part of its gains. Between 1923 and 1929 the membership hovered about the 90,000 mark. Membership dropped sharply during the depression, began to recover about 1934, and now exceeds 100,000.

This book by Dr. Henig, therefore, concerns a large and important labor organization. The union is interesting, moreover, because of its predominantly white-collar membership, and because its general outlook has been distinctly more progressive than that of the majority of unions affiliated with the American Federation of Labor. In making this study Dr. Henig, who is an assistant professor of economics at the University of Cincinnati, had full access to the records of the Brotherhood.

The greater part of the volume deals with union policies since 1920, only two chapters being devoted to the early years of the organization and its experiences during the period of federal control of the railroads. Wages since 1920 are discussed in some detail, with emphasis on procedural steps in negotiations under the Transportation Act of 1920 and the Railway Labor Act of 1926,

the arguments advanced by the Clerks in wage disputes, and wage movements. The success of the Brotherhood (together with other railroad unions) in maintaining basic rates of pay, with temporary reductions, during the 1929 depression is termed "truly amazing," but Dr. Henig does not commit himself on "the wisdom of maintaining high wages in a depression." A chapter apiece is devoted to grievances, rules, and working conditions and to collective bargaining. As in the case of wages, these subjects are discussed in terms of the framework of federal legislation within which the unions and carriers operate. A careful explanation of the major working rules that the Clerks have established is given; on the whole, Dr. Henig finds little of an objectionable nature in these instruments of job control, an opinion which the reviewer can verify from personal experience with them.

Other chapters discuss the jurisdiction, membership, and coverage of the Brotherhood, the social and industrial program of the union, and the manner in which it is governed and financed. Five appendices provide useful information on a number of topics. There is a selected bibliography. The book, in general, represents a sober and scholarly appraisal of the history and policies of a major railroad union.

*The Woman's College,
University of North Carolina*

H. M. DOUTY

Labor's Road to Plenty. By Allen W. Rucker. Boston: L. C. Page & Co., 1937. Pp. xvii, 221. \$2.50.

Mr. Rucker has an *idée fixe*. He contends that "the American System of freedom of enterprise with rewards proportionate to productive effort" is being undermined by "the extension of the European theory of arbitrary determination of wage rates and working hours" to the United States. He appears to believe that he has found here the basic cause of the 1929 depression and of our subsequent difficulties. Simple cause, simple remedy: repeal all legislation regulating hours of labor and wages and persuade workers to relinquish their propensity to bargain collectively. Then adopt the Pay-Proportionate-to-Productivity Principle, under which firms allocate a "normal average percentage" of the "value added by manufacture" to payrolls. Mr. Rucker maintains that

this percentage remains relatively constant over time, and, through an interesting use of statistical evasion, proves his point.

Now no economist denies (although Mr. Rucker thinks that most of them do) that there are important relations between wages and labor productivity and between wage rates and the volume of employment. Mr. Rucker might have attempted seriously to investigate these matters. Did labor legislation and collective bargaining tend, in a significant way, to reduce employment opportunities for labor and labor incomes as a whole during 1923-1933, the period with which he is concerned? No doubt Mr. Rucker thinks that he has answered this question; unfortunately, however, the voluminous statistical data which he adduces in support of his point of view have remarkably little to do with the case.

Most of Mr. Rucker's statistical data relate to manufacturing, and what happened in manufacturing is exactly the reverse of what he would have us believe. Thus, output per man hour rose by 22 per cent between 1923 and 1929, hourly earnings by only 8 per cent between 1923 and 1928, and wholesale prices fell about 6 per cent from 1923 to 1929. The percentage which wages formed of value added by manufacture dropped from 42.6 in 1923 to 36.4 in 1929. During this same period profits increased by 84 per cent. These figures are for manufacturing as a whole, and could form the basis for a lot of collective bargaining and labor legislation.

Mr. Rucker's point of view would at least be intelligible if he were arguing for a thorough-going competitive economy. But he says not a word about the increasing rigidity of the price structure resulting from monopoly and quasi-monopoly control over large sectors of our economic life. As compared with this, such rigidities as do exist in the wage structure are relatively of minor importance. But judging by the endorsements that appear on its cover, this book contains the kind of material that many business men like to read.

The Woman's College,
University of North Carolina

H. M. DOUTY

Personnel and Labor Relations. By Dale Yoder. New York: Prentice-Hall, 1938. Pp. xix, 644. \$5.35.

Today the problem of labor relations has become one of major

concern to American industry and business. Indeed, it is doubtful if this problem ever demanded as much attention from management in the whole history of this country, even during and immediately following the troublesome days of the World War. The problem has been intensified and magnified to one of first importance for business by the depression, by a vigorous and growing labor movement that is militant and for the first time politically minded, and by the enactment of new and far-reaching labor legislation national in scope. The day when employers could choose between dealing individually or collectively with their workers is gone. That these developments in labor relations bring to the foreground the function of personnel administration should be obvious.

Professor Yoder's book deals most effectively with this new scene on the labor and personnel front. It presents all the essentials of sound personnel policy and procedure developed in the past and made available in earlier books on the subject and it brings them up-to-date. Students of labor problems and personnel management will find the book to be based throughout on sound personnel policy and labor economics. In addition to presenting the revolutionary developments in labor organization and legislation, the author has added much valuable statistical material useful in evaluating and dealing with personnel problems not found in most books on the subject. The chapters on wage policies and wage payment systems are exceptionally good. The bibliography is comprehensive and includes the latest publications.

Professor Yoder is unusually successful in showing that personnel work is a function of management as a whole, that it is good business, and that it is good social policy. This is a far cry from the days when personnel management was looked upon as paternalistic welfare work, good advertising, or an insurance policy against labor unions. Much mental reorientation will need to take place with many executives before the true function of personnel work in business will be realized and before it will be given its rightful place in the scheme of things. All executives, including foremen, should read this book and refer to it constantly.

Teachers and students of personnel management and industrial relations will find the volume satisfactory in every way. Both the author and the publishers deserve commendation for producing

this distinct contribution to a most perplexing national problem. The volume is easy to read and an example of excellence in book making.

University of North Carolina

G. T. SCHWENNING

Papers on the Science of Administration. Edited by Luther Gulick and L. Urwick. New York: Institute of Public Administration, Columbia University, 1937. Pp. viii, 195. \$3.00.

The editor's justification for this volume is the previous inaccessibility of most of the essays it contains to practical administrators, scholars, or students. When the specialist completes reading the book he cannot easily avoid the conclusion that the collection is a first-rate one, deserving of the highest praise. Each of the eleven essayists makes an undeniable contribution to thinking in the field of administration, be it military, "public", or industrial.

The papers are of varying length; those of Professor Gulick entitled "Notes on the Theory of Organization" and Mr. Urwick on "Organization As a Technical Problem" take up nearly half the book. These, with other papers, notably a hitherto untranslated contribution by M. Henri Fayol on "The Administrative Theory in the State", deal principally with structure and organization. The subject of personnel is treated only incidentally, the essays most closely approaching this subject being "The Effects of Social Environment" (on workers' efficiency) and "The Pros and Cons of Functionalization." The five page essay of Professor Gulick entitled "Science, Values and Public Administration", the shortest in the volume, is at the same time one of the most novel and significant.

The outstanding contributions of the volume, it seems to this reviewer, are (1) the stress laid on the desirability of "public" and industrial administrators studying military administration, a field hitherto much neglected by them, (2) a clarification of our thinking on the definition and organization of "line" and "staff", and (3) a brilliant and penetrating analysis by M. Graicunas of the number of subordinates a superior can direct within human limitations. This analysis is abstract and mathematical in character, but it places logic behind our previous "rule of thumb" or empirical knowledge and thinking on the subject.

What criticisms may be made of the essays in the volume? Since the essays, with one exception, deal with the *general* theory of organization in administration the stress is laid on general principles, inductively derived. Professor Gulick realizes, from a rich and varied experience in the study of the *practice* of administration, that exceptions must be made when applying the principles, e.g. (p. 38), "The structure of any organization must reflect not only the logic of the work to be done, but also the special aptitudes of the particular human beings who are brought together in the organization to carry through a particular project. It is the men and not the organization chart that do the work." *Per contra*, Mr. Urwick takes what seems to be an extremely mechanistic view of human institutions when he says, (p. 85), "The idea that organizations should be built up around and adjusted to individual idiosyncrasies, rather than that individuals should be adapted to the requirements of sound principles of organization, is as foolish as attempting to design an engine to accord with the whimsies of one's maiden aunt rather than with the laws of mechanical science."

Professor Gulick states, and we agree, (p. 192), "The fundamental objective of the science of administration is the accomplishment of the work in hand with the least expenditure of man-power and materials." One looks in vain, however, for recognition of the importance of *materials* in this author's answer to the question "what does the chief executive do?" On p. 13 he gives the answer POSDCORB, which stands for Planning, Organizing, Staffing, Direction, Coordinating, Reporting, and Budgeting. Is not budgeting a *tool* designed to implement planning and reporting? M. Fayol, on the other hand, recognizes the importance of *materials* when he indicates (p. 119) that organizing relates to both men and materials.

Some of the authors have struggled, unsuccessfully, with the problem of the place of the purchasing office in the organization, (see especially p. 70).

No more stimulating and thought-provoking volume has appeared in this field in years.

University of North Carolina

CHARLTON F. CHUTE

An Index to Business Indices. By Donald H. Davenport and Frances V. Scott. Chicago: Business Publications, 1937. Pp. viii, 187. \$3.00.

An Index to Business Indices is designed to tell research workers what American index numbers and other statistical indices exist and where they may be found, together with a brief description of their nature. "Statistical indices" includes series expressed in physical or monetary units, while index numbers apparently refer to percentages of some base. Indexes included are those of general interest that are available to the general public and are kept up to date. Regional indices are given only if subgroups of a national total, and annual indexes only if issued also on a more frequent basis.

The book is divided into two parts: I. Finding Index; II. Description of Indexes. In each part there are three sections: (1) Commodity Prices; (2) Securities; (3) General.

The Finding Index is arranged alphabetically, the name of the compiling agency being given as well as the name of the index. Suppose one wishes to find an index of sensitive commodity prices. In the Finding Index, Commodity Price Section, one finds:

Sensitive commodities (w)..... W M 63

This means that on page 63 will be found a description of one or more such wholesale (w) price indexes on a weekly (W) and monthly (M) basis. There are two such indexes listed on page 63, one by Harvard University, and one by the New York Times Company. Consequently, if one is searching for a commodity price index by Harvard University, he will find it under Harvard University in the Finding Index. There he will learn that it is a weekly and monthly index, but unfortunately he will not learn whether it is retail or wholesale index. In general the cross indexing is not as complete as might be desired. For instance, "Industrial production" is not to be found in the Finding Index, though there are two series by that title described in Part II. Again under the heading, "General business," which is a subdivision of Section III, there should be given the names of the compiling organizations of the different indexes listed. One might also wish that the names of persons, such as Carl Snyder, commonly associated with certain indexes, were listed.

In the section dealing with descriptions of indexes, following separate bold face headings, are given: the title of the indexes; the compiling organization; frequency of publication; period covered; where current data is published; sometimes where back data is published; general description. In the descriptive paragraph one can find the base of the index or the unit of measurement, where a detailed description of the index can be found, and the method of computation. It would be useful if a more complete description of method were given. The formula (in mathematical or English language) and type of weighting should always be given. Probably also the base or unit of measurement is important enough to be given a separate heading rather than being buried in the general descriptive matter. Especially to be regretted is the failure to give in every instance a source or series of sources to which one may refer to get complete back data.

Although not everything desirable is included in this volume, one cannot escape the conclusion that the writers have admirably succeeded in furnishing a much-needed labor saving device for research workers.

University of North Carolina

DUDLEY J. COWDEN

The Structure of American Business. By Richard P. Doherty and Max Hartmann. Boston: Manthorne & Burack, 1937. Pp. 371. \$3.00.

Many teachers of Economics are finding it advisable to offer preliminary or survey courses in this subject, courses often designated as Descriptive Economics. These courses attempt to give the beginning student a view of the entire economic system in preparation for a more intensive course expounding the principles of the science. They are offered usually during one quarter of the freshman year of college or during the senior year of high school. This volume is offered as a text for such a course.

As stated by the authors in their Foreword, "This text aims at presenting a concrete descriptive survey of the general structure of our economic system." They state also that "it is an outgrowth of ten years of experimentation with a freshman orientation course." As a treatise of this general type, the present text merits consideration. It is written in simple language and in an interest-

ing, lucid style. It is comparatively free of errors, well arranged and printed, and up-to-date in subject matter.

The main fault to be found with this text consists in a lack of proper balance of content. Little or no attention is given to a description of our money and banking system, to public finance, labor problems, or to price determination. On the other hand, the general subject of marketing is given considerable space. This section contains, in addition to a description of the structure of commodity distribution, much information concerning the marketing area of Boston, Massachusetts, which should make the text particularly interesting to students of that locality.

University of North Carolina

E. H. ANDERSON

Mathematics of Finance. By D. H. Mackenzie. New York: McGraw-Hill Book Co., 1937. Pp. ix, 313 + viii, 214. \$3.00.

It is apparent that this book was designed primarily for use by students having little mathematical background, as evidenced by the fact that the first fifty of its 300 pages of textual matter are devoted to a brief exposition of eighth grade algebra and logarithmic computation. There follows the usual array of topics to be found in an accountant's handbook of investment formulae; viz., compound interest and discount, amortization of debt, sinking funds and bond yields, methods of valuation, life insurance premiums and life annuities. There is also a brief discussion of building and loan problems and of leaseholds. The last 214 pages of the 527 page volume contain the compound interest tables of Kent and Kent. The treatment of compound interest and annuities is rather elaborate and accounts for 135 pages.

Any book whose content is inevitably so standardized as this one must be judged on the basis of clarity of exposition and "teachability," which in turn cannot be appraised with certitude by one who has not had the experience of using the book as text. Without the benefit of such experience this reviewer is none the less of the opinion that Professor Mackenzie's exposition ranks comparatively high on the score of lucidity because of its extended treatment of the basic theory of discount. The proof of each formula is painstakingly developed line by line without omitting any step,

no matter how simple. After each proof come illustrative examples and problems.

Some rather captious criticism: there is no mention of the force of interest; the chapter labeled "Probability and Life Insurance" does not give the fundamentals of probability theory; frequently the payment period is confused with the reciprocal of that period (e.g., pp. 111-12).

The format is very readable and pleasing to the eye.

University of Florida

MONTGOMERY D. ANDERSON

STATE NEWS

ALABAMA

As in the nation as a whole, in Alabama business activity during 1937 presented a study in contrasts. Practically all of the available statistical series showed gains for the first six months, but activity during the second half of the year was seriously curtailed. The indices of the Bureau of Business Research of the University of Alabama showed a definite business recession in the state during the latter half of 1937 but a recession less severe than that for the United States as a whole. These statistics show steel ingot production for Alabama as 34.7 per cent below normal in December, 1937 and 26.3 per cent below in January, 1938. These figures compare with 59.2 per cent and 59.1 per cent below normal for the same two months for the United States. Similarly, the indices for pig iron production for December, 1937, and January, 1938, were 34.3 per cent and 32.9 per cent below normal for Alabama and 46.4 per cent and 50.7 per cent for the United States. Coke production and gasoline sales remained at relatively high levels.

The State Comptroller has announced that the state of Alabama will be able this year to pay its general fund appropriations in full. If this is accomplished it will be the first time since the passage of the Fletcher Budget Act in 1932. This act prohibited issuing warrants in excess of funds actually on hand and provided for prorating appropriation claims and for the cancellation of all appropriation balances unpaid at the end of the year because of the lack of funds. The collections for the fiscal year ending September 30, 1937, show decided increases in revenues. Ad valorem tax receipts were \$6,191,700, which is approximately \$100,000 more than for the preceding year. However, the Homestead Exemption Act has gone into effect and revenue from this source for the current year will probably be decidedly decreased. The new sources of revenue are the sales or luxury tax, and the Alcohol Beverage Control Act. The comptroller's office reported collections of \$2,903,010.10 on the luxury tax, \$551,749.52 from

licenses for sale of beer and \$1,186,143.47 from the sales of state liquor stores. This last, of course, does not represent a net revenue figure since the expense of operating the stores has not been deducted. A considerable portion of the receipts from the sales tax will be required to replace the revenue lost by the operation of the homestead exemption provision. In the opinion of many students the ability of the state to make good the promises of the comptroller depends upon the profits from the sale of liquor.

University of Alabama

H. H. CHAPMAN

FLORIDA

The third session of the Rollins College Annual Economic Conference was held in Winter Park during the last week in January. It is reported that the attendance at this conference again exceeded that of the previous one and favorable interest in the conference is increasing. The three-day session was devoted to an analysis of major problems, as indicated by the topics and discussion leaders listed below:

Prices in Theory and Practice—Dr. Wilford L. White.

Problems of Labor in the Citrus Industry—A. E. Pickard,
R. B. Woolfolk, and George B. Jackson.

The Bi-Lateral Trade Agreements—Charles D. Darlington,
Jr.

The Taxation of Capital Gains—Dr. Robert M. Haig.

Budget Balancing and The National Debt—Harvey S. Chase.

The Babson Park Mid-winter business conference was held on February 15-17 under the auspices of Webber College and Roger W. Babson. Subjects discussed were:

Advantages of Florida Residence—Dr. Fred H. Albee and Mr.
John Boushall.

Future of the Citrus Industry—Mr. Richard Holzcker and
State Senator Spessard Holland.

The World Outlook—Dr. Brewer Eddy.

What Sort of a College Education Should We Offer Our Young
People—Dr. John H. Sherman.

The Far Eastern Crisis—Dr. Ch'ao-ting Chi.

Business Outlook for 1938—Prof. Ralph B. Wilson.

The Canadian Business Outlook—Mr. George T. Fulford.

Question Period—Mr. Roger W. Babson.

The Agricultural Adjustment Administration recently announced abandonment of attempts to effect a citrus marketing agreement for the current season. The producer and marketing interests failed to reach an acceptable agreement. Some of the problems of the relatively large crop are being met temporarily by purchases of oranges by the F. S. C. C. for distribution to W. P. A. workers. It was announced that a marketing agreement for 1938-39 would be attempted.

The Florida State Forester reports that more than 5,000,000 slash pine seedlings were planted in Florida during December and January. This represents 33 per cent increase for these two months over the whole of the previous planting period. Two pulp-wood using companies planted approximately 1,000,000 of the seedlings on their properties. The balance of the plantings, including also some long-leaf pine, Australian pine, black locust, and others, was by small land owners. The increase in planting is due to the recent movement of pulp-wood mills into Florida. Recently, a large plant was opened in Fernandina and a second large plant is under construction in Jacksonville.

University of Florida

ROLAND B. EUTSLER

GEORGIA

A special session of the Georgia legislature called late in November to deal with a number of revenue problems finally adjourned on February 13. The principal accomplishments of the session included laws providing exemptions on homesteads up to \$2000 and household furniture up to \$300; a law providing for county option on liquor sales; a virtual doubling of the beer tax; a law to discount rentals on the state-owned Atlantic and Western Railroad; an intangible property levy upon stocks, bonds, and notes secured by real estate mortgages of \$3 for \$1000 of fair market value and \$.10 per \$1000 of bank deposits. Stocks of Georgia corporations are exempt. Additional legislation provided for a revision of the motor vehicle tax which set up a schedule of license fees varying from \$1.50 for the lightest passenger car to \$2000 for the heaviest type of truck or the non-passenger carrying vehicle; reforms of the penal system and several laws dealing with social security. Bills introduced which failed to pass

included a proposal to increase the chain store levy, a civil service measure, a luxury tax, and a general sales tax.

Emory University

J. EDWARD HEDGES

LOUISIANA

Louisiana's Governor Leche and the governors of several other Southern states are getting more and more active in their efforts to induce capital to come South.

Governor Leche through the State Board of Commerce and Industry has been able to sign contracts that represented more than \$40,000,000. In securing new industries and out-of-state capital the board is advertising that the state offers three advantages: ten-year tax exemptions, the advantages of Southern labor, and Louisiana's rich resources.

Through the cooperation of the Louisiana State University, the State Banking Department, and the Louisiana Bankers Association, the first Louisiana Bankers' Conference was held at Louisiana State University, January 26, 27, 28. Dean J. B. Trant of the College of Commerce represented the University. Recognized authorities in banking, investments, economics, public relations, analysis and service charges delivered addresses and discussed important subjects. Among these were: Dr. Harold Stonier of New York, Executive Manager of the American Bankers Association; Leo T. Crowley, Chairman Federal Deposit Insurance Corporation, Washington, D. C.; Lawrence R. Lunden, Investment Counsel University of Minnesota; and Gus W. Dyer, Professor of Economics, Vanderbilt University. Addresses were also made by two members of the Department of Economics of Louisiana State University, Dr. Mack H. Hornbeak and Dr. H. L. McCracken.

An important Labor Conference for the Southern region, called by Secretary Perkins of the Department of Labor in Washington, was held in New Orleans, February 14-16. Eleven states were included in the conference. Among the subjects considered were child labor, wages and hours, and workmen's compensation. On Tuesday evening, February 15, Governor Leche and Mayor Maestri of New Orleans gave a banquet in honor of Miss Perkins at which time the Secretary of Labor gave an excellent address.

The conference clearly revealed definite labor problems peculiar

to the South. It also revealed a rising recognition of these problems and a desire for their intelligent solution.

Louisiana State University

S. A. CALDWELL

MISSISSIPPI

In a five-to-one decision the state supreme court upheld the constitutionality of the Mississippi Industrialization Act, which authorizes municipalities to sell bonds and build factories for use by private concerns under contracts providing free rental of the properties for a number of years. It is expected that bond sales and actual construction of plants under the "Balance Agriculture with Industry" program now will proceed at a quickened pace.

The legislature, which convened January 4th, authorized a \$60,000,000 road bond issue to refinance borrowings of the past two years at lowered interest rates and to provide \$39,000,000 in new funds for road construction. Including grants from the Public Works Administration, the total amount spent on hard surfaced road building during Governor White's administration will be well in excess of \$80,000,000.

The new appropriation of \$2,000,000 to match federal grants for pensions to the dependent aged is expected to result in monthly payments having an arithmetic average of somewhat more than \$7. This figure appears large only by comparison with the mean amount of past payments, \$3.60.

In his opening address before the legislative session, Governor White created a sensation with a proposal that necessary steps be taken to exempt all homes, regardless of value, from both state and local ad valorem taxes. An extra session is expected to be called this summer in time for the legislature to vote upon a constitutional amendment which, if approved, will be presented to the voters in the November general election. The governor has not revealed his specific plans, including his idea of what taxes would be employed to replace the levies on homesteads. Any radical revision of tax structure would be made with due regard for the recent fat yields of the two per cent sales tax, which during the last biennium netted \$12,171,547, or 37 per cent of the state's total ordinary revenues.

Economists should take note of the annual report of the Missis-

ssippi Planning Commission. This document, prepared under the supervision of Director L. J. Folse and Assistant Director L. O. Cooper, is a summary of the commission's findings during the past two years and as such is a noteworthy compendium of factual information on the state's natural resources and population.

The School of Business at Mississippi State College announces a five-day conference for bank employees to be held this summer.

Jackson, Mississippi

M. K. HORNE, JR.

NORTH CAROLINA

On January 1, 1938, the new classified Intangible Personal Property tax became effective. Returns must be filed and the tax paid to the state by March 15th of each year. Depositors in North Carolina banks became conscious of the tax upon the receipt of their December statements which carried the tax deduction slip. Bank deposits are taxed at the source 10 cents upon the \$100 of the average of the quarterly balances of the calendar year. Money on hand December 31 in excess of \$300 is taxed 20 cents per \$100. Accounts receivable in excess of accounts payable are taxed 25 cents per \$100 with an exemption of \$300. Funds left with insurance companies and fiduciaries pay 25 cents per \$100. Notes, bonds, and other evidences of debt in excess of \$300 are taxed 40 cents per \$100. Shares of stock, except in corporations paying franchise, property, and income taxes in North Carolina, are taxed 30 cents per \$100 of market value on December 31, with an exemption of \$300.

The counties and towns had been taxing intangible personal property under the general property tax until a constitutional amendment adopted in 1936 authorized classification. They naturally opposed the proposal to transfer this source of revenue to the state. A compromise was finally adopted to the effect that the state should collect the tax and distribute half the proceeds among the counties and towns. The general feeling among local government finance officers is that local units that had been doing a reasonably efficient job of listing intangibles will experience a considerable loss of revenue from the change. Other counties and cities will gain from the new system.

As January 1, 1938, was the earliest date upon which claims for

unemployment compensation could be filed, the 45 offices of the State Employment Service had overtime work in caring for the 40,112 claims. Of these claims 28,714 were forwarded to the Compensation Division of the Unemployment Commission. Textile workers constituted the largest single group of claimants.

Building permits for 21 cities in the state were \$7,890,543 in 1937 as compared with \$6,342,546 in 1936. Estimated construction cost was \$3,472,595 greater in 1937 than in 1936. Debits to individual accounts in the banks of the seven largest cities of the state were 14 per cent greater in 1937 than in 1936. During the 1937 season to December 31st, the farmers of the state sold a total of 555,000,000 pounds of tobacco at an average price of \$24.81 per hundred pounds, compared to 423,000,000 pounds in 1936 at an average price of \$22.73 per hundred pounds. According to these figures, published by the Federal Reserve Bank of Richmond, the farmers received for their chief cash crop 43 per cent more in 1937 than in 1936.

Duke University

J. M. KEECH

TENNESSEE

Revenues collected by the state for the six months ending December 31, 1937, showed an increase of \$3,158,066.86 over the same period for 1936. Recently the cigarette tax of 4 cents per package for most brands was reduced for a test period to 3 cents. It was argued that the higher tax was discouraging purchases of cigarettes and encouraging evasion.

The recent passage by Congress of a bill authorizing the expenditure of \$743,000 to complete the purchase of land needed for the Smoky Mountain National Park will bring the park up to the minimum acreage required for the formal opening. Funds will be used also to provide cabins and camp facilities, thus encouraging vacationists and tourists to visit the park in larger numbers.

The recent National Unemployment Census reported an unemployment figure for Tennessee of 116,142. The total of unemployed persons in the state is 4 per cent of the total estimated population as compared with the general average of 4.5 per cent for the entire country. The Unemployment Compensation

Division recently estimated that 12½ per cent of 335,000 workers were eligible for jobless payments in January 1938.

Telephone rates have been reduced recently, effecting a saving estimated at \$314,000 annually.

Effective January 1, 1938, the Tennessee Valley Authority announced a new wage and hour schedule for 8,000 skilled and unskilled workers, providing for a maximum 40-hour week with overtime pay and an approximate increase of 5 per cent in wages. The new agreement is the result of negotiations between the Tennessee Valley Authority and the Tennessee Valley Trades and Labor Council and means an increase in yearly wages of more than \$500,000, according to the estimates of the authority.

In a forty-nine page unanimous decision by a three-judge federal court in session in Chattanooga, the Tennessee Valley Authority's power program, attacked by 18 private utilities, was recently upheld on every issue raised. With every phase of the authority's \$475,000,000 "unified plan" for the development of the Tennessee River held constitutional, James Lawrence Fly, Chief Counsel for the authority, hails the decision as a "milestone in the conservation movement." Plans have been made to appeal to the United States Supreme Court.

An extensive enlargement of the Nashville airport was recently approved by the WPA and the Bureau of Air Commerce. When completed, this airport will be large enough to accommodate the new 40-passenger Douglas planes.

Tennessee Valley Authority

T. L. HOWARD

PERSONNEL NOTES

M. A. Bacon, Instructor in Economics at Vanderbilt University, is taking graduate work at the University of Michigan this year.

Malcolm H. Bryan, formerly of the University of Georgia, has been made Vice-President of the Atlanta Federal Reserve Bank in charge of research, statistics and business information.

Kenneth Dameron, Professor of Marketing at Ohio State University, served as Visiting Professor of Marketing at the University of Florida during the first semester of 1937-38.

C. F. Dunham, formerly of the University of South Dakota, has become Head of the Department of Accountancy at the University of Mississippi, succeeding A. B. Crosier, who retired from teaching.

T. N. Farris, of Louisiana State University, will teach at George Peabody College for Teachers in Nashville, Tennessee, during the 1938 summer session.

J. D. Goeltz, Instructor in Economics at the University of Tennessee, has been on leave making an investigation of certain aspects of public utility regulation in Tennessee.

Oscar E. Heskin, formerly Instructor in Economics at the University of Minnesota, has joined the staff of the University of Florida as Assistant Professor of Economics and Marketing.

Byron Hill, a former fellow, has been made Instructor in Economics at Vanderbilt University.

Mary H. Johnson has returned to the University of Mississippi as Instructor of Secretarial Training. She was on leave for a year to work with the Tennessee Valley Authority at Knoxville.

Preston Kimball, formerly of the University of Mississippi, is now on the staff of Mississippi State College.

C. W. Phelps, of the University of Chattanooga, has been appointed by Governor Browning as consultant on the State Committee on Public Assistance and Direct Relief.

D. M. Potter has been made Instructor in Economics at the University of Mississippi.

L. B. Raisty, of the University of Georgia, has been Director of a W.P.A. project, entitled "A Survey of County and Municipal Fiscal Affairs in Georgia." The results of this study will be published in several volumes.

Fritz Redlich has joined the faculty of Mercer University as head of the Department of Economics.

John Rusevinckel, a graduate of the University of Michigan, assumed his duties as Instructor in Accounting last September at Loyola University of the South. He has recently been engaged in public accounting work in Toledo, Ohio.

George Seferovich, a graduate fellow at Louisiana State University, has been appointed an Instructor in the Department of Economics at Loyola University of the South.

Gleen W. Sutton, of the University of Georgia, returned to his duties in the School of Commerce at the beginning of the fall term after having been on leave for a year, during which time he had charge of the Southeastern Division of a project called "Urban Study of Consumer Purchases." This study was done under the auspices of the Bureau of Labor Statistics of the United States Department of Labor.

Charles D. Thompson this year became Associate Professor and head of the Economics Department at Georgia State College for Women at Milledgeville, replacing E. G. Cornelius who has resigned. From 1912 until 1934 Dr. Thompson was Professor of Economics at Allahabad University in India. During the latter part of the period he was Dean of the Faculty of Commerce.

W. P. Trumbull has been appointed Instructor in Accountancy at the University of Mississippi.

Frank B. Ward, Professor of Economics at the University of Tennessee, acted as forum leader in a series of eight weekly meetings during the past winter for the Knoxville Community Forum.

John P. Williams, for twelve years Professor of Business Administration at Davidson College, will direct the new educational advisory department of the American College of Life Underwriters at Philadelphia, Pennsylvania. He expects to begin his new duties after the end of the spring term.

Erich W. Zimmermann, Kenan Professor of Economics at the University of North Carolina, will teach at Columbia University during the coming summer session.

BOOKS RECEIVED

- Can We Control the Boom?* By Bertil Ohlin, et al. Minneapolis: University of Minnesota Press, 1937. Pp. 29. 25 cents.
- International Control in the Non-Ferrous Metals.* By William Yardell Elliott, et al. New York: Macmillan Co., 1937. Pp. xxi, 801. \$6.50.
- Socialized Medicine in the Soviet Union.* By Henry E. Sigerist, M.D. New York: W. W. Norton Co., 1937. Pp. 378. \$3.50.
- Werner Sombart and His Type of Economics.* By M. J. Plotnik. New York: Eco Press, 1937. Pp. 133. \$2.00.
- Introduction to Economic Analysis.* By Archibald MacDonald McIsaac and James Gerald Smith. Boston: Little, Brown & Co., 1937. Pp. x, 444. \$1.40.
- Municipal Bonds.* By A. M. Hillhouse. New York: Prentice-Hall, 1936. Pp. xiv, 579. \$5.00.
- Modern Banking.* By Rollin G. Thomas. New York: Prentice-Hall, 1937. Pp. xvi, 474. \$3.80.
- Trade Disputes Disqualification Clause Under the British Unemployment Insurance Acts.* By Peter T. Swanish. Chicago: University of Chicago Press, 1937. Pp. ix, 73. \$1.00.
- The Economic and Social Foundations of European Civilization.* By Alfons Dopsch. New York: Harcourt, Brace & Co., 1937. Pp. xiv, 404. \$5.00.
- An Analysis of the Effects of the Processing Taxes Levied under the Agricultural Adjustment Act.* Prepared by the Bureau of Agricultural Economics, U. S. Department of Agriculture. Washington: Government Printing Office, 1937. Pp. 111. 15 cents.
- The Social Security Act in Operation.* By Richard E. Wyatt and William H. Wandel. Washington, D. C.: Graphic Arts Press, 1937. Pp. xiii, 382. \$3.50.
- Buying for Retail Stores.* By Norris A. Brisco and John W. Wingate. New York: Prentice-Hall, 1937. Pp. xvi, 565. \$5.50.
- The Brotherhood of Railway Clerks.* By Harry Henig. New York: Columbia University Press, 1937. Pp. x, 300. \$3.00.
- Technical Progress and Agricultural Depression.* By Eugene Altschul and Frederick Strauss. New York: National Bureau of Economic Research Bulletin 67, November 29, 1937. Pp. 32. 50 cents.

- Sunspots and Their Effects.* By Harlan True Stetson. New York: McGraw-Hill Book Co., 1937. Pp. xv, 201. \$2.00.
- Morocco as a French Economic Venture.* By Melvin M. Knight. New York: Appleton-Century Co., 1937. Pp. x, 244. \$2.25.
- Managerial Control.* By John G. Glover and Coleman L. Maze. New York: Ronald Press Co., 1937. Pp. xviii, 574. \$4.50.
- The Negro's Struggle for Survival.* By S. J. Holmes. Berkeley: University of California Press, 1937. Pp. xii, 296. \$3.00.
- Business Organization and Operation.* By Ralph C. Davis. Columbus, Ohio: H. L. Hedrick, 1937. Pp. 144. \$1.00.
- The Wasted Land.* By Gerald W. Johnson. Chapel Hill: University of North Carolina Press, 1937. Pp. vi, 110. \$1.50.
- An Index to Business Indices.* By Donald H. Davenport and Frances V. Scott. Chicago: Business Publications, 1937. Pp. viii, 187. \$3.00.
- How to Deal with Organized Labor.* By Alexander Feller and Jacob E. Hurwitz. New York: Alexander Publishing Co., 1937. Pp. xii, 664. \$6.50.
- Trade in the Eastern Seas, 1793-1813.* By C. Northcote Parkinson. New York: Macmillan Co., 1937. Pp. xiii, 435. \$5.00.
- Capitalism and its Culture.* Second Edition. By Jerome Davis. New York: Farrar & Rinehart, 1936. Pp. xvii, 556. \$2.25.
- Social Philosophy in Conflict: Facism and Nazism, Communism, Liberal Democracy.* By Joseph A. Leighton. New York: Appleton-Century Co., 1937. Pp. xxii, 546. \$4.00.
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- A Financial History of Maine.* By Fred Eugene Jewett. New York: Columbia University Press, 1937. Pp. 235. \$3.25.
- The Plough and the Sword: Labor, Land, and Property in Facist Italy.* By Carl T. Schmidt. New York: Columbia University Press, 1938. Pp. 197. \$2.50.
- French Indo-China.* By Virginia Thompson. New York: Macmillan Co., 1937. Pp. 517. \$5.00.
- Social Philosophies in Conflict.* Students' Edition. By Joseph A. Leighton. New York: Appleton-Century Co., 1937. Pp. xxii, 546. \$3.25.
- Economic Problems of Modern Society.* By John N. Andrews and Rudolf K. Michels. New York: Ronald Press Co., 1937. Pp. xvi, 798. \$3.75.
- You and Your Money.* By William Lemke. Philadelphia: Dorrance & Co., 1938. Pp. 98. \$1.00.

- The Dollar: A Study of the "New" National and International Monetary System.* By John Donaldson. New York: Oxford University Press, 1937. Pp. xix, 271. \$3.75.
- The Structure of Social Action.* By Talcott Parsons. New York: McGraw-Hill Book Co., 1937. Pp. xii, 817. \$6.00.
- Part-Time Farming in the Southeast.* By R. H. Allen, et al. Washington: Works Progress Administration, Division of Social Research, 1937. Pp. xxxviii, 317.
- The Interstate Commerce Commission: A Study in Administrative Law and Procedure.* Part Four. By I. L. Sharfman. New York: Commonwealth Fund, 1937. Pp. xii, 350. \$4.50.
- Manitoba's Case: A Submission Presented to the Royal Commission on Dominion-Provincial Relations.* Parts I-IX. By the Government of the Province of Manitoba. Winnipeg, Manitoba, Canada, 1937.
- Money, Credit, and Finance.* By George Francis Luthringer, et al. Boston: Little, Brown & Co., 1938. Pp. x, 379. \$1.40.
- Public Utility Rate Making and the Price Level.* By E. M. Bernstein. Chapel Hill: University of North Carolina Press, 1937. Pp. x, 142. \$2.50.
- America's Purpose.* By Alfred J. Snyder. Philadelphia: Declaration Press, 1937. Pp. 375. \$3.00.
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- The Case For Democracy and Its Meaning for Modern Life.* By Ordway Tead. With a Reading List on Democracy by Benson Y. Landis. New York: Association Press, 1938. Pp. x, 120. \$1.25.
- International Short-Term Capital Movements.* By Charles Poor Kindleberger. New York: Columbia University Press, 1937. Pp. xi, 262. \$3.00.
- A Problem Approach to Economics.* By Willard E. Atkins and James D. Magee. New York: Harper & Brothers, 1937. Pp. viii, 572. \$2.75.
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- Business and the Robinson-Patman Law.* Edited by Benjamin Werne. New York: Oxford University Press, 1938. Pp. xiv, 296. \$2.50.
- An Introduction to Business.* By Cleon Oliphant Swyze and Clifford

- Milton Hicks. New York: Farrar & Rinehart, 1938. Pp. xxiii, 691. \$3.75.
- Personnel and Labor Relations.* By Dale Yoder. New York: Prentice-Hall, 1938. Pp. xix, 644. \$5.35.
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- Business Under the New Price Laws: A Study of the Economic and Legal Problems Arising Out of the Robinson-Patman Act and the Various Fair Trade and Unfair Practices Law.* By Burton A. Zorn and George J. Feldman. New York: Prentice-Hall, 1937. Pp. xvii, 463. \$5.00.
- The Problem of Economic Order.* By C. E. Ayers. New York: Farrar & Rinehart, 1938. Pp. vi, 92. Paper Covers. 60 cents.
- Economic Consequences of Recent American Tax Policy.* By Gerhard Cohn and Fritz Lehmann. New York: Social Research, Supplement I, 1938. Pp. xii, 108. \$1.00.
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- The American Reconstruction and Welfare Program.* By Oliver N. Roth. Wichita, Kansas: American Reconstruction and Welfare Association, 1937. Pp. 79. 50 cents.
- International Trade.* By Hugh B. Killough. New York: McGraw-Hill Book Co., 1938. Pp. xiv, 622. \$4.00.
- Health Insurance: The Next Step in Social Security.* By Louis S. Reed. New York: Harper & Brothers, 1937. Pp. xi, 281. \$3.00.
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- Problems in Agricultural Marketing.* By Deane W. Malott. New York: McGraw-Hill Book Co., 1938. Pp. xiii, 410. \$3.00.
- Personal Income Taxation.* By Henry C. Simons. Chicago: University of Chicago Press, 1938. Pp. xi, 238. \$2.00.
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- Trends in Relief Expenditures, 1910-1935.* By Anne E. Geddes. Washington: Works Progress Administration, 1937. Pp. xv, 117.
- The Thirty-Year Decline in Commodity Prices.* By Allen W. Rucker. Boston: Eddy-Rucker-Nickels Co., 1938. Pp. 24. 25 cents.

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- A History of the Economic and Social Progress of European Peoples.* By Walter W. Jennings. Cincinnati: South-Western Publishing Co., 1936. Pp. xiii, 713. \$3.50.
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- Danish Agriculture: Its Economic Development.* By Einar Jensen. Copenhagen: J. H. Schultz Forlag, 1937. Pp. xvi, 417. \$3.75.
- Population, Resources and Trade.* By Burnham North Dell and George Francis Luthringer. Boston: Little, Brown & Co., 1938. Pp. x, 291. \$1.20.

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